Phe	Leu	Asn	Phe	Lys	Val	Phe	Leu	Phe	Asn	Arg	Phe	Cys	Thr	Asp	Cys
		35					40					45			
Lys	Asn	Lys	Val	Leu	Arg	Ala	Tyr	Asn	Пe	Leu	lle	G]y	Glu	Leu	Asp
	50					55					60				
Cys	Ser	Lys	Glu	Lys	Gly	Tyr	Cys	Ala	Ala	Leu	Tyr	Glu	Gly	Leu	Arg
65					70					75					80
Cys	Cys	Pro	His	Glu	Arg	His	He	His	Val	Cys	Cys	Glu	Thr	Asp	Phe
				85					90					95	
Ile	Ala	His	Leu	Leu	Gly	Arg	Ala	Glu	Pro	Glu	Phe	Ala	Gly	Gly	Arg
			100					105					110		
Arg	Glu	Arg	His	Ala	Lys	Thr	Ile	Asp	lle	Ala	Gln	G1u	Glu	Val	Leu
		115					120					125			
Thr	Cys	Leu	Gly	Пе	llis	Leu	Tyr	Glu	Arg	Leu	His	Arg	He	Trp	Gln
	130					135					140				
Lys	Leu	Arg	Ala	Glu	Glu	Gln	Thr	Trp	Gln	Met	Leu	Phe	Tyr	Leu	Gly
145					150					155					160
Val	Asp	Ala	Leu	Arg	Lys	Ser	Phe	Glu	Met	Thr	Val	Glu	Lys	Val	Gln
				165					170					175	
Gly	He	Ser	Arg	Leu	Glu	Gln	Leu	Cys	Glu	Glu	Phe	Ser	Glu	Glu	Glu
			180					185					190		
Arg	Val	Arg	Glu	Leu	Lys	Gln	Glu	Lys	Lys	Arg	Gln	Lys	Arg	Lys	Asn
		195					200					205			
Arg	Arg	Lys	Asn	Lys	Cys	Val	Cys	Asp	Пе	Pro	Thr	P.ro	Leu	Gln	Thr
	210					215					220				
Ala	Asp	Glu	Lys	Glu	Va]	Ser	Gln	Glu	Lys	Glu	Thr	Asp	Phe	He	Glu
225					230					235					240
Asn	Ser	Ser	Cys	Lys	Ala	Cys	Gly	Ser	Thr	Glu	Asp	Gly	Asn	Thr	Cys
				245					250					255	
Val	Glu	Val	He	Val	Thr	Asn	Glu	Asn	Thr	Ser	Cys	Thr	Cys	Pro	Ser
			260					265					270		
Ser	Gly	Asn	Leu	Leu	Gly	Ser	Pro	Lys	He	Lys	Lys	Gly	Leu	Ser	Pro
		275					280					285			
His	Cys	Asn	Gly	Ser	Asp	Cys	Gly	Tyr	Ser	Ser	Ser	Met			
	290					295					300				

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<210> 3584
<211> 321
<212> PRT
<213> Homo sapiens
<400> 3584
Met Ser Val Gln Glu Ala Gly Ala Thr Ser Pro Pro Ala Arg Ile Leu
                  5
                                     10
Lys Glu Pro Gly Pro Ala Gln Pro Leu Ser Ala Gly Pro Glu Trp Asp
                                 25
                                                      30
Arg Gly Arg Gly Val Arg Arg Cys Gly Pro Gly Val Leu Leu Gly
                             40
Ala Ser Ser Val Ser Trp Gly Leu Ala Thr Ser Gly His Gln Gly Arg
     50
                         55
                                             60
Gly Cys Gly Asp Gly Gly Gly Ala Arg Val Pro Thr Lys Ser Val Pro
                     70
                                         75
65
Gly Gly Gly Pro Arg Ala Ser Arg Ser Val Arg Glu Val Ala Gly Gly
                 85
                                     90
Gly Phe Ala Cys Asn Pro Gly Lys Gly Pro Ala Ala Val Arg Leu Ala
            100
Leu Gly Gly Gly Trp Lys Ile Ser Lys Ser Pro Ile Pro Val Gln Met
                            120
Ala Ala Gly Ala Ala Gly Cys Arg Thr Gln Ala Arg Gly Gln Arg Leu
                                             140
    130
                        135
Thr Ser Arg Gly Arg Glu Ser Pro Glu Ala Thr Gly Val Pro Glu Arg
                    150
145
                                        155
                                                             160
Arg Gly Asp Pro Glu Thr Arg Arg Asn Arg Lys Ser Leu Thr Pro Gly
                165
                                    170
Ser Gly Glu Phe Gly Val Arg Ser Gln Ser Cys Asp Ser Thr Val Pro
            180
                                                     190
                                 185
Glu Ser Leu Glu Arg Ala Leu Trp Ala Gln Ser Ser Gln Leu Ala Gly
                            200
                                                 205
Gly Pro Gly Leu Ala Pro Arg Pro Gly Ala Ser Gly Arg Gly Arg Trp
    210
                        215
                                             220
Val Ser Ala Pro Leu Pro Pro Lys Gly Thr Glu Thr Phe Phe Cys Val
```

Leu Pro Ser Ala Leu Arg Ala Ala Leu Ser Cys Gly Pro Ser Trp Gly Glu Asp Ser Gly Pro Arg His Arg Glu Leu Arg Pro Asp Pro Asp Ser Arg Arg Ala Ser Ala Glu Arg Ser Pro Arg Cys Pro Pro Gly Ser Pro Arg Lys Ala Gly Pro Gly Arg Arg Asp Ala Arg Gly Ala Ala Leu Gly Gly Ala Phe Arg Val Leu Ala Gly Arg Ala Leu Leu Arg Arg Gly Met Glu

<210> 3585

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3585

Met Ser His Leu Pro Thr Ala Pro Arg Val Leu Phe Gln Leu Pro Ala lle His Ser Pro Thr Pro Leu Gly Pro Gln Leu Arg Leu Glu Pro Asp Asn Trp Arg Ser Gln Gln Asp Ser Glu Val Ser Glu Ser Ser Ala Pro Asp Gly Pro Gly Ser Ala Met Trp Ser Gln His Gly Leu Trp Tyr Leu Val Ala Ala Phe Leu Leu Arg Trp Ala Pro Val Lys Thr Arg Val Met Val Asp Gly Ser Pro Met Thr Met Glu Lys Ala Leu Lys His Phe Glu Ala Gln Ser Thr Glu Lys Glu Arg Ala Phe Ala Gly Arg Val Gly Trp Ala Phe Leu Thr Val Leu Gln Glu Val His Thr Gln Ser Leu Arg Asp

Thr Ala Gln Val Arg Asp Leu Gln Gly Gln Ala Glu Arg Leu Glu Ile 135 Arg Thr Tyr Ser Leu Lys Arg Glu Leu Gly Pro Ala Thr Ser Val Gly 145 150 155 160 Leu Gly Gln Pro Ser Gln Ser Glu Thr Pro Ala Arg Ser Asp Thr Lys 170 165 Glu Glu Glu Pro Pro Leu Gln Ala His Pro Val Val Arg Gln Lys lle 185 Glu Gln Glu Gln Pro Leu Gly Pro Gln Gly Val Gly Val Gln Gly Pro 195 200 205 Pro Thr Val Val Glu His Met Ser Tyr Ser Ala Tyr Thr Pro Thr Asp 215 220 Leu His Lys Leu Gly Lys Gln Cys Gln Gln Cys Met Gly Glu Pro Leu 225 230 235 240 Ser Thr Trp Met Leu Cys Leu Leu Asp Glu Gly Ala Asp Gly lle Val 245 250 Cys Ser Ala Ser Glu Met Glu Lys Leu Ala Ser Ile Met Thr His Pro 260 265 270 Ser Asn Ser Asp Cys Arg 275

<210> 3586

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3586

50 55 60

Val Pro Lys Glu Ser Ala Ile Arg Ile Leu Arg Gly Ile Ile Leu Asn Gln Tyr lle Asn Phe Arg Gly Trp Pro Gln Asp Leu Gln Gln Gly Ser Val Phe Leu Cys Leu Thr Leu Gln Gly Phe Arg Gly Gln Gly Val Ser Ser Asn Met Arg Val Arg Gly Trp 

<210> 3587

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3587 Met Thr Glu Glu Ser Ser Asp Val Pro Arg Glu Leu Ile Glu Ser Ile Lys Asp Val Ile Gly Arg Lys Ile Lys Ile Ser Val Lys Lys Val Lys Leu Glu Val Lys Gly Asp Lys Val Glu Asn Lys Val Leu Val Leu Thr Ser Cys Arg Ala Phe Leu Val Thr Ala Arg Ile Pro Thr Lys Leu Glu Leu Thr Phe Ser Tyr Leu Glu Ile His Gly Val Val Cys Ser Lys Ser Ala Gln Met Ile Val Glu Thr Glu Lys Cys Ser lle Ser Met Lys Met Ala Ser Pro Glu Asp Val Ser Glu Val Leu Ala His Ile Gly Thr Cys Leu Arg Lys Ile Phe Pro Gly Leu Ser Pro Val Arg Ile Met Lys Lys Val Ser Met Glu Pro Ser Glu Arg Leu Ala Ser Leu Gln Ala Leu

Trp Asp Ser Gln Thr Val Ala Glu Gln Gly Pro Cys Gly Gly Phe Ser

Gln	Met	Tyr	Ala	-	Val	Cys	Asp	Trp		Gly	Phe	Ser	Tyr	_	Glu
				165					170					175	
Glu	Val	Gln	Trp 180	Asp	Va]	Asp	Thr	11e 185	Tyr	Leu	Thr	Gln	Asp 190	Thr	Arg
C1	Lau	Aan		Cln	Aan	Dha	Com		Lau	Aan	Uio	Λ		Lau	Tla
OTU	Leu		Leu	OIII	ASP	rne		1115	Leu	ush	1112	Arg	nsp	Leu	116
_		195					200					205	_		
Pro		He	Ala	Ala	Leu	Glu	Tyr	Asn	GIn	Trp		Thr	Lys	Leu	Ser
	210					215					220				
Ser	Lys	Asp	Leu	Lys	Leu	Ser	Thr	Asp	Val	Cys	Glu	Gln	He	Leu	Arg
225					230					235					240
Val	Val	Ser	Arg	Ser	Asn	Arg	Leu	Glu	Glu	Leu	Val	Leu	Glu	Asn	Ala
				245					250					255	
Gly	Leu	Arg	Thr	Asp	Phe	Ala	Gln	Lys	Leu	Ala	Ser	Ala	Leu	Ala	His
			260					265					270		
Asn	Pro	Asn	Ser	Gly	Leu	His	Thr	He	Asn	Leu	Ala	Gly	Asn	Pro	Leu
		275		-			280					285			
Glu	Asp	Arg	Glv	Val	Ser	Ser	Leu	Ser	He	Gln	Phe	Ala	Lvs	Leu	Pro
	290	8	,			295					300		-,-		
Lve		Len	lve	Hic	Leu		Len	Ser	lve	Thr		Leu	Ser	Pro	Lve
305	Oly	Lcu	Lys	1113	310	ASH	LCu	501	Lys	315	501	LCu	501	110	320
	Vol	Aon	Con	Lau		Cl <sub>n</sub>	Can	Lau	Can		Aon	Dwo	Lau	Tha	
GIY	vai	ASII	261		361	OIII	261	Leu		MIA	АЗП	Pro	Leu		МІА
	m			325		_			330					335	
Ser	lhr	Leu		HIS	Leu	Asp	Leu		Gly	Asn	Val	Leu		Gly	Asp
			340					345					350		
Asp	Leu	Ser	His	Met	Tyr	Asn	Phe	Leu	Ala	Gln	Pro	Asn	Ala	He	Val
		355					360					365			
His	Leu	Asp	Leu	Ser	Asn	Thr	Glu	Cys	Ser	Leu	Asp	Met	Val	Cys	Gly
	370					375					380				
Ala	Leu	Leu	Arg	Gly	Cys	Leu	Gln	Tyr	Leu	Ala	Val	Leu	Asn	Leu	Ser
385					390					395					400
Arg	Thr	Val	Phe	Ser	His	Arg	Lys	Gly	Lys	Glu	Val	Pro	Pro	Ser	Phe
				405					410					415	
Lys	Gln	Phe	Phe	Ser	Ser	Ser	Leu	Ala	Leu	Met	His	He	Asn	Leu	Ser
			420					425					430		
Glv	Thr	Lvs		Ser	Pro	G] u	Pro		Lvs	Ala	Leu	Leu		Glv	Leu
5		435					440		, _			445		- • ;	
		.00													

<210> 3588

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3588

Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr Gly Leu Ala Met

1 5 10 15

Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser Val Leu Tyr Val 20 25 30

Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe Trp Phe Gly Thr
35 40 45

Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val lle Leu Gly Phe Asn Tyr 50 55 60

Ile Ile Gly Gly Ser Tyr Pro Met Asp Leu Gly Gly Arg Asn Phe Leu
65 70 75 80

Ser Thr Pro Gln Phe Leu Tyr Arg Trp Leu Pro Ser Arg Arg Gly Gly
85 90 95

Val Ser Gly Phe Gly Val Pro Pro Ala Ser Met Arg Arg Ala Ala Asp 100 105 110

Gln Asn Gly Gly Gly Gly Arg His Asn Trp Gly Gln Gly Phe Arg Leu 115 120 125

Gly Asp Gln

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<211> 352
<212> PRT
<213> Homo sapiens
<400> 3589
Met His Thr Gln Pro Leu Lys Glu Ala Lys Arg Met Pro Asp Arg Pro
                                      10
Ile Lys Trp Asp Lys Ser Tyr Tyr Ser Phe Thr Gly Phe Lys Asp Pro
             20
                                  25
                                                      30
Asp Glu Asp Leu Glu Gln Val Ser Arg Val Glu Thr Thr Leu Thr Ser
                              40
                                                  45
Trp Leu Asp Asn Asn Gly Lys Ser Ala Val Lys Lys Leu Lys Asn Ser
     50
                         55
                                              60
Leu Pro Leu Arg Lys Glu Leu Asp Arg Leu Lys Asp Glu Leu Ser His
                      70
                                          75
 65
Gln Leu Gln Leu Ser Asp Ile Arg Trp Gln Arg Ser Trp Gly 11e Ala
                                      90
His Arg Cys Ser Gln Leu His Ser Leu Ser Arg Leu Ala Gln Gln Asn
            100
                                 105
                                                     110
Leu Glu Thr Leu Lys Lys Ala Lys Gly Cys Thr Ile Ile Phe Thr Asp
                             120
Arg Ser Gly Met Ser Ala Val Gly His Val Met Leu Gly Thr Met Asp
    130
                         135
                                             140
Val His His Trp Thr Lys Leu Phe Glu Arg Leu Pro Ser Tyr Phe
                     150
                                         155
Asp Leu Gln Arg Arg Leu Met 11e Leu Glu Asp Gln 11e Ser Tyr Leu
                165
                                     170
Leu Gly Gly Ile Gln Val Val Tyr Ile Glu Glu Leu Gln Pro Val Leu
            180
                                 185
                                                     190
Thr Leu Glu Glu Tyr Tyr Ser Leu Leu Asp Val Phe Tyr Asn Arg Leu
                            200
Leu Lys Ser Arg 11e Leu Phe His Pro Arg Ser Leu Arg Gly Leu Gln
    210
                        215
Met Ile Leu Asn Ser Asp Arg Tyr Ala Pro Ser Leu His Glu Leu Gly
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<210> 3589

His Phe Asn Ile Pro Thr Leu Cys Asp Pro Ala Asn Leu Gln Trp Phe 245 250 Ile Leu Thr Lys Ala Gln Gln Ala Arg Glu Asn Met Lys Arg Lys Glu 260 265 270 Glu Leu Lys Val Ile Glu Asn Glu Leu Ile Gln Ala Ser Thr Lys Lys 280 285 Phe Ser Leu Glu Lys Leu Tyr Lys Glu Pro Ser Ile Ser Ser Ile Gln 295 Met Val Asp Cys Cys Lys Arg Leu Leu Glu Gln Ser Leu Pro Tyr Leu 305 310 315 His Gly Met His Leu Cys Ile Ser His Phe Tyr Ser Val Met Gln Asp 325 330 Gly Asp Leu Cys 11e Pro Trp Asn Trp Lys Asn Gly Glu Ala 11e Lys 340 345 350

<210> 3590

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3590

Met Ala Ala Ala Pro Asp Tyr Pro Ala Pro Phe Tyr Pro Ser Ser Gly

1 5 10 15

Arg Asn Pro Ser Pro Arg Pro Phe Pro Leu Lys Gly Asn Gly Pro Lys

20 25 30

Val Gly Arg Ala Ala Arg Leu Pro Arg Ser Ile Gln Val Lys Arg Glu

35 40 45

Ser Asp Gln Thr Gly Glu Pro Arg Gly Pro Ile Phe Arg Asp Leu Thr

50 55 60

Gly His Leu Asp Arg Pro Leu Gln Leu Gly Thr Phe Gln Glu Asn Glu 65 70 75 80

Gly Asn Val Val 11e Ala Pro Glu Pro His Ser Ser Ser Glu Val Leu 85 90 95

Phe Thr Ser Leu Trp Lys Lys 11e Gly Tyr Leu Phe Leu Val Glu Arg 100 105 110 Val Glu Ile 115

<210> 3591

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3591

Met Ile Ser Ser Arg Met Pro Cys Leu Leu Val Leu As<br/>n Ser Val Ser  $\phantom{0}_{1}$   $\phantom{0}$   $\phantom{0}$ 

Phe Pro Leu Phe Leu Ala Val Tyr Tyr Trp Pro Ala Ser Leu Asp Gly
20 25 30

Ala Ala Gly Met Val Gl<br/>n 11e As<br/>n Glu Gly His Thr Lys Val 11e Leu 35 40 45

Leu Lys Ala His Val Gly Leu Arg Pro Glu Leu Thr Asp Thr Glu Met 50 55 60

Ser Leu Ile Leu Cys Leu Phe His Cys Leu Trp Tyr Tyr Ser Ala Phe 65 70 75 80

Thr Glu Glu Arg Val Leu Gly Asn Arg Asn Thr Arg lle Ile Leu Val
85 90 95

Gln Gln Leu Leu Ala Thr Pro Lys Phe Thr Tyr Phe Leu Pro Pro Ala 100 105 110

Phe Phe Ile Asp Leu Ala Ala Ser Glu Ile Phe Ala Ala Ser Gl<br/>n 115 120 125

<210> 3592

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3592

Met His Gly Ser Lys Trp Leu Asp Ser Trp Val Gly Trp Gly Ser Gln

1 5 10 15

Ser Arg Leu Pro Glu Gly Leu Glu Val Thr Pro Pro Gly Gly Asp Gly

20 25 30 Ser Ser Gln Val Gly Cys His Gln Ser Arg Gln His Cys Leu Leu Gly 35 40 Thr Pro Gly Glu Ala Asp Arg Val Ser Gly Phe Gln Leu Gly Gly Ser 55 Pro Ala Glu Asn Pro Val Lys Pro Ala Phe His Ser Ser Pro Val Cys 70 75 80 Pro Glu Pro Gly Leu Arg Ala Ala Leu Cys Met Pro Ala Leu Pro Thr 85 90 Trp Gln Ser Ser Gly Gly Arg Thr Pro Arg Leu Ser Gly Asp Ser Gln 100 105 110 Ala Asn Val Ser 11e Pro Gly Ser Ala Leu Ser Cys His Glu Phe Arg 115 120 125 Lys Ala Glu Ala Ala Gln Gln Met Gly Thr Arg Gly Arg Thr Ala Ile 135 His Ser Leu Ser Ser His Pro Gln Ala Cys Arg Ala Pro Gly Leu Trp 155 160 150 Cys

<210> 3593

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3593

<210> 3594

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3594

Met Gln Val Val Arg Glu Val Gly Glu Ser Gln Gln Ser Gln Ala Ser l Ser Ser His Ala Ile Gln Arg Ala Ile Leu Thr Pro Thr Val Pro Leu Cys Asn Ser Thr Glu Ser Val Phe Arg Gln Trp Thr Ser Arg

35 40 45

Ala Glu Asn Leu Pro His Val Thr His Leu Pro Ala Ala Val Glu Lys 50 55 60

Gly Phe Ser Ser Ser Cys Thr Cys Gly Val Tyr Met Pro Asp Met Cys
65 70 75 80

Pro Pro Leu Ser Ser Gly Gln Glu Ala Ser Gln Pro Val Gln Ile Val 85 90 95

Thr Lys Phe Ser

100

<210> 3595

<211> 418

<212> PRT

## <213> Homo sapiens

<400	)> 35	595													
Met	Leu	Glu	Asn	His	He	Leu	His	Lys	Arg	Пе	Tyr	He	Leu	Thr	Phe
l				5					10					15	
Phe	Ser	Gln	Gln	He	Phe	He	Leu	Cys	His	Ala	His	Phe	He	Phe	Phe
			20					25					30		
Phe	Thr	Val	Arg	Asp	Phe	Cys	Arg	Gln	Asp	Glu	Lys	Cys	Asp	Tyr	Tyr
		35					40					45			
Phe	Ser	Val	Asp	Ala	Asp	Val	Val	Leu	Thr	Asn	Pro	Arg	Thr	Leu	Lys
	50					55					60				
lle	Leu	He	Glu	Gln	Asn	Arg	Lys	He	He	Ala	Pro	Leu	Val	Thr	Arg
65					70					75					80
His	Gly	Lys	Leu	Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu	Ser	Pro	Asp	Gly
				85					90					95	
Tyr	Tyr	Ala	Arg	Ser	Glu	Asp	Tyr	Va]	Asp	He	Va]	Gln	G1 y	Asn	Arg
			100					105					110		
Val	Gly	Val	Trp	Asn	Val	Pro	Tyr	Met	Ala	Asn	Val	Tyr	Leu	He	Lys
		115					120					125			
Gly	Lys	Thr	Leu	Arg	Ser	Glu	Met	Asn	Glu	Arg	Asn	Tyr	Phe	Val	Arg
	130					135					140				
Asp	Lys	Leu	Asp	Pro	Asp	Met	Ala	Leu	Cys	Arg	Asn	Ala	Arg	Glu	Met
145					150					155					160
Thr	Leu	GIn	Arg	Glu	Lys	Asp	Ser	Pro	Thr	Pro	Glu	Thr	Phe	Gln	Met
				165					170					175	
Leu	Ser	Pro		Lys	Gly	Val	Phe	Met	Tyr	He	Ser	Asn	Arg	His	Glu
			180					185					190		
Phe	Gly		Leu	Leu	Ser	Thr		Asn	Tyr	Asn	Thr	Ser	His	Tyr	Asn
		195					200					205			
Asn		Leu	Trp	Gln	lle		Glu	Asn	Pro	Val		Trp	Lys	Glu	Lys
	210					215					220				
	He	Asn	Arg	Asp		Ser	Lys	He	Phe		Glu	Asn	He	Val	
225	15				230					235		_			240
GIn	Pro	Cys	Pro		Val	Phe	Trp	Phe		He	Phe	Ser	Glu		Ala
C		C 3		245	6.1	6.1	3.4	61	250	Tr.	0.7	,	æ	255	6.1
Cys	Asp	61u	Leu	val	Glu	Glu	Met	Glu	His	Tyr	GIy	Lys	Trp	Ser	GIy

			260					265					270		
Gly	Lys	His	His	Asp	Ser	Arg	Πe	Ser	Gly	Gly	Tyr	Glu	Asn	Val	Pro
		275					280					285			
Thr	Asp	Asp	Пе	His	Met	Lys	Gln	Val	Asp	Leu	Glu	Asn	Val	Trp	Leu
	290					295					300				
His	Phe	He	Arg	Glu	Phe	He	Ala	Pro	Val	Thr	Leu	Lys	Val	Phe	Ala
305					310					315					320
Gly	Tyr	Tyr	Thr	Lys	Gly	Phe	Ala	Leu	Leu	Asn	Phe	Val	Val	Lys	Tyr
				325					330					335	
Ser	Pro	Glu	Arg	Gln	Arg	Ser	Leu	Arg	Pro	His	His	Asp	Ala	Ser	Thr
			340					345					350		
Phe	Thr	11e	Asn	11e	Ala	Leu	Asn	Asn	Val	Gly	Glu	Asp	Phe	Gln	Gly
		355					360					365			
Gly	Gly	Cys	Lys	Phe	Leu	Arg	Tyr	Asn	Cys	Ser	He	Glu	Ser	Pro	Arg
	370					375					380				
Lys	Gly	Trp	Ser	Phe	Met	His	Pro	Gly	Arg	Leu	Thr	His	Leu	His	Glu
385					390					395					400
Gly	Leu	Pro	Val	Lys	Asn	Gly	Thr	Arg	Tyr	He	Ala	Val	Ser	Phe	Ile
				405					410					415	
Asp	Pro														

<210> 3596

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3596

 Met Pro Val Leu Pro Pro Cys
 Val Leu Gln Val Arg Asp Glu Gln His

 1
 5
 10
 15

 Gln Cys
 Pro Leu Gly Asn Leu Lys
 Val Pro Leu Ser Gln Leu Leu Thr

 20
 25
 30

 Ser Glu Asp Met Thr Val Ser Gln Arg Phe Gln Leu Gly Asn Ser Gly

 40
 45

 Pro Asn Ser Thr Ile Lys Met Lys Ile Ala Leu Arg Val Leu His Leu

55 60 50 Glu Lys Arg Glu Arg Pro Pro Asp His Gln His Ser Ala Gln Val Lys 70 75 Arg Pro Ser Val Ser Lys Glu Gly Arg Lys Thr Ser Ile Lys Ser His 90 85 Met Ser Gly Ser Pro Gly Pro Gly Gly Ser Asn Thr Ala Pro Ser Thr 105 Pro Val Ile Gly Gly Ser Asp Lys Pro Gly Met Glu Glu Lys Ala Gln 115 120 125 Pro Pro Glu Ala Gly Pro Gln Gly Leu His Asp Leu Gly Arg Ser Ser 135 Ser Ser Leu Leu Ala Ser Pro Gly His 11e Ser Val Lys Glu Pro Thr 150 155 Pro Ser 11e Ala Ser Asp 11e Ser Leu Pro 11e Ala Thr Gln Glu Leu 165 170 Arg Gln Arg Leu Arg Gln Leu Glu Asn Gly Thr Thr Leu Gly Gln Ser 185 Pro Leu Gly Gln lle Gln Leu Thr lle Gln His Ser Ser Gln Lys Gln 195 200 205 Ala Tyr Arg Gly Arg Ala Cys Leu Gln Lys Pro His Cys Leu Leu 210 215 220

<210> 3597

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3597

Met Asp Trp Thr Trp Arg Val Leu Cys Val Leu Ala Val Ala Pro Gly

1 5 10 15

Ala Arg Leu Gln Val Gln Leu Thr Gln Ser Gly Ala Ala Leu Lys Lys

20 25 30

Pro Gly Ala Ser Leu Lys Leu Ser Cys Arg Ala Ser Ala Asp Ser Ser

35 40 45

lle Thr Tyr Asn lle His Trp Leu Arg Arg Pro Pro Gly Gln Gly Phe

	50					55					60				
Glu	Trp	Leu	Gly	Lys	He	Asn	Ser	Arg	Asp	Ser	He	Thr	Asn	Ser	Ala
65					70					75					80
Pro	Arg	Phe	Gln	Gly	Ser	Val	Thr	Met	Thr	Arg	Asp	Arg	Ser	Ser	Ser
				85					90					95	
Thr	Phe	Tyr	Leu	Asp	Leu	Arg	Ser	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val
			100					105					110		
Tyr	Tyr	Cys	Thr	Arg	Ser	He	Trp	Pro	Leu	Asp	Tyr	Phe	Asp	Ser	Trp
		115					120					125			
Gly	Gln	Gly	Thr	Gln	Val	Thr	Val	Ser	Pro	Ala	Pro	Thr	Lys	Ala	Pro
	130					135					140				
Asp	Val	Phe	Pro	He	He	Ser	Gly	Cys	Arg	His	Pro	Lys	Asp	Asn	Ser
145					150					155					160
Pro	Val	Val	Leu	Ala	Cys	Leu	He	Thr	G1 y	Tyr	His	Pro	Thr	Ser	Val
				165					170					175	
Thr	Val	Thr	Trp	Tyr	Met	Gly	Thr	Gln	Ser	Gln	Pro	Gln	Arg	Thr	Phe
			180					185					190		
Pro	Glu	Ile	Gln	Arg	Arg	Asp	Ser	Tyr	Tyr	Met	Thr	Ser	Ser	Gln	Leu
		195					200					205			
Ser	Thr	Pro	Leu	Gln	Gln	Trp	Arg	Gln	Glv	Glu	Tyr	Lys	Cys	Val	Val
	210					215					220				
Gln	His	Thr	Ala	Ser	Lys	Ser	Lys	Lys	Glu	He	Phe	Arg	Trp	Pro	Glu
225					230					235					240
Ser	Pro	Lys	Ala	Gln	Ala	Ser	Ser	Val	Pro	Thr	Ala	Gln	Pro	Gln	Ala
				245					250					255	
Glu	Gly	Ser	Leu	Ala	Lys	Ala	Thr		Ala	Pro	Ala	Thr	Thr	Arg	Asn
			260					265					270		
Thr	Gly	Arg	Gly	Gly	Glu	G]u	Lys	Lys	Lys	Glu	Lys	Glu	Lys	Glu	Glu
		275					280					285			
Gln	Glu	Glu	Arg	Glu	Thr	Lys	Thr	Gln	Ser	Val	Arg	Ala	Thr	Pro	Ser
	290					295					300				
Leu	Leu	Ala	Ser	Thr	Cys										
305					310										

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<211> 324
<212> PRT
<213> Homo sapiens
<400> 3598
Met Pro Thr Thr Pro Val Lys Ala Lys Arg Val Ser Thr Phe Gln Glu
                                     10
Phe Glu Ser Asn Thr Ser Asp Ala Trp Asp Ala Gly Glu Asp Asp Asp
             20
                                 25
                                                      30
Glu Leu Leu Ala Met Ala Ala Glu Ser Leu Asn Ser Glu Val Val Met
                             40
                                                  45
Glu Thr Ala Asn Arg Val Leu Arg Asn His Ser Gln Arg Gln Gly Arg
                         55
                                             60
Pro Thr Leu Gln Glu Gly Pro Gly Leu Gln Gln Lys Pro Arg Pro Glu
65
Ala Glu Pro Pro Ser Pro Pro Ser Gly Asp Leu Arg Leu Val Lys Ser
                                     90
Val Ser Glu Ser His Thr Ser Cys Pro Ala Glu Ser Ala Ser Asp Ala
            100
                                105
                                                     110
Ala Pro Leu Gln Arg Ser Gln Ser Leu Pro His Ser Ala Thr Val Thr
       115
                            120
                                                 125
Leu Gly Gly Thr Ser Asp Pro Ser Thr Leu Ser Ser Ser Ala Leu Ser
                        135
                                            140
Glu Arg Glu Ala Ser Arg Leu Asp Lys Phe Lys Gln Leu Leu Ala Gly
                                                             160
Pro Asn Thr Asp Leu Glu Glu Leu Arg Arg Leu Ser Trp Ser Gly lle
                165
                                    170
Pro Lys Pro Val Arg Pro Met Thr Trp Lys Leu Leu Ser Gly Tyr Leu
            180
                                185
                                                     190
Pro Ala Asn Val Asp Arg Arg Pro Ala Thr Leu Gln Arg Lys Gln Lys
                            200
       195
                                                 205
Glu Tyr Phe Ala Phe Ile Glu His Tyr Tyr Asp Ser Arg Asn Asp Glu
                        215
Val His Gln Asp Thr Tyr Arg Gln Ile His Ile Asp Ile Pro Arg Met
225
                    230
                                        235
                                                             240
```

Ser Pro Glu Ala Leu Ile Leu Gln Pro Lys Val Thr Glu 11e Phe Glu

Arg Ile Leu Phe Ile Trp Ala Ile Arg His Pro Ala Ser Gly Tyr Val Gln Gly Ile Asn Asp Leu Val Thr Pro Phe Phe Val Val Phe Ile Cys Glu Tyr Ile Ala Phe Pro Gly Cys Gly Arg Pro Gln Ile Pro Ile Leu Ala Val Ile Trp Arg Asp Glu Pro Tyr Pro Arg Thr Asp Glu Gln Ile Ile Leu Arg Arg

<210> 3599

<211> 407

<212> PRT

<213> Homo sapiens

<400> 3599

Met Asn Met 11e Trp Arg Asn Ser 11e Ser Cys Leu Arg Leu Gly Lys Val Pro His Arg Tyr Gln Ser Gly Tyr His Pro Val Ala Pro Leu Gly Ser Arg Ile Leu Thr Asp Pro Ala Lys Val Phe Glu His Asn Met Trp Asp His Met Gln Trp Ser Lys Glu Glu Glu Ala Ala Ala Arg Lys Lys Val Lys Glu Asn Ser Ala Val Arg Val Leu Leu Glu Glu Gln Val Lys Tyr Glu Arg Glu Ala Ser Lys Tyr Trp Asp Thr Phe Tyr Lys Ile His Lys Asn Lys Phe Phe Lys Asp Arg Asn Trp Leu Leu Arg Glu Phe Pro Glu lle Leu Pro Val Asp Gln Lys Pro Glu Glu Lys Ala Arg Glu Ser 

Ser Trp Asp His Val Lys Thr Ser Ala Thr Asn Arg Phe Ser Arg Met

	130					135					140				
His	Cys	Pro	Thr	Val	Pro	Asp	Glu	Lys	Asn	His	Tyr	Glu	Lys	Ser	Ser
145					150					155					160
Gly	Ser	Ser	Glu	Gly	Gln	Ser	Lys	Thr	Glu	Ser	Asp	Phe	Ser	Asn	Leu
				165					170					175	
Asp	Ser	Glu	Lys	His	Lys	Lys	Gly	Pro	Met	Glu	Thr	Gly	Leu	Phe	Pro
			180					185					190		
Gly	Ser	Asn	Ala	Thr	Phe	Arg	Ile	Leu	Glu	Val	Gly	Cys	Gly	Ala	Gly
		195					200					205			
Asn	Ser	Val	Phe	Pro	Ile	Leu	Asn	Thr	Leu	Glu	Asn	Ser	Pro	Glu	Ser
	210					215					220				
Phe	Leu	Tyr	Cys	Cys	Asp	Phe	Ala	Ser	Gly	Ala	Val	Glu	Leu	Val	Lys
225					230					235					240
Ser	His	Ser	Ser	Tyr	Arg	Ala	Thr	Gln	Cys	Phe	Ala	Phe	Val	His	Asp
				245					250					255	
Val	Cys	Asp	Asp	Gly	Leu	Pro	Tyr	Pro	Phe	Pro	Asp	Gly	He	Leu	Asp
			260					265					270		
Val	He	Leu	Leu	Val	Phe	Val	Leu	Ser	Ser	lle	His	Pro	Asp	Arg	Met
		275					280					285			
Gln	Gly	Val	Val	Asn	Arg	Leu	Ser	Lys	Leu	Leu	Lys	Pro	Gly	Gly	Met
	290					295					300				
Leu	Leu	Phe	Arg	Asp	Tyr	Gly	Arg	Tyr	Asp	Lys	Thr	Gln	Leu	Arg	Phe
305					310					315					320
Lys	Lys	Gly	His	Cys	Leu	Ser	Glu	Asn	Phe	Tyr	Val	Arg	G1 y	Asp	Gly
				325					330					335	
Thr	Arg	Ala	Tyr	Phe	Phe	Thr	Lys	Gly	Glu	Val	His	Ser	Met	Phe	Cys
			340					345					350		
Lys	Ala	Ser	Leu	Asp	Glu	Lys	Gln	Asn	Leu	Val	Asp	Arg	Arg	Leu	Gln
		355					360					365			
Val	Asn	Arg	Lys	Lys	Gln	Val	Lys	Met	His	Arg	Val	Trp	He	Gln	Gly
	370					375					380				
Lys	Phe	Gln	Lys	Pro		His	Gln	Thr	Gln		Ser	Ser	Asn	Met	
385					390					395					400
Ser	Thr	Leu	Leu		Gln	Asp									
				405											

<210> 3600 <211> 144 <212> PRT <213> Homo sapiens <400> 3600 Met Val Cys Pro Glu Phe Val Pro Ser Asp Val Gln Met Cys Leu Glu 5 1 10 15 Phe Leu Pro Ser Gly Gly Phe Val Val Ser Leu Asp Phe Arg Ser Glu 20 25 Ala Thr Glu Leu Cys Ser Val Thr Ala Leu Lys Gly Ala Arg Leu Glu 40 45 Leu Leu Val Pro Pro Asp Gly Phe Val Ala Leu Leu Thr Ser Gly Met 50 Lys Pro Gln Thr Leu Thr Val Ser Val Thr Ala His Lys Gly Ser Ala 70 75 Asp Pro Glu Glu Ala Ala Ala Lys Phe Ile Val Lys Ser Lys Arg Thr 90 95 85 Lys Leu Pro Gln His Glu Thr Ala Pro Gln Arg Ile Ala Thr Ala Ala 100 105 Trp Val Ala Ser Phe Tyr Ser Leu Thr Trp Pro His Pro His Pro Ala 120 125 Asp Trp Ser Ile Leu Gln Arg Gly Asp Trp Ser Val Phe Thr Gln Cys 130 135 140

<210> 3601

<211> 150

<212> PRT

<213> Homo sapiens

<400> 3601

Met Gln Ser Leu Pro Thr Ala Pro Ser Phe Gly Val Ser Thr Gly Leu

1 5 10 15

Leu Ala Ala Ala Ala Phe Tyr Gln Thr Ser Gln Pro Pro Ser Pro Pro

30 20 25 Leu Gly Ser Ser Ser Pro Thr Trp Pro Ala Arg Val Thr Leu Lys Tyr 40 45 Lys Ser Asp Pro Asn Thr Ser Leu Leu Lys Thr His Gln Val Leu Pro 50 55 60 Pro His Ser Met Gln Cys Lys Ser Ser Pro Trp Ser Ser Ser Ile Ser 70 75 Pro Ser Pro Ser Ala Ser Ser Leu Pro His Leu Leu Ser Ser Tyr 85 90 Thr Gly Leu Cys Cys Thr Trp Asp Met Pro Ser Lys Thr Gln Pro Trp 100 105 Gly Leu Cys Ser Arg Pro Leu Pro Gly Cys Ser Ser Pro Ser Tyr Pro 120 125 Gln Val Trp Leu Pro Asp Phe Ile Gln Arg Pro Pro Ser Gln Glu Asp 130 135 140 Thr Leu Asp Cys Phe Val 145 150 <210> 3602 <211> 163 <212> PRT <213> Homo sapiens <400> 3602 Met Gly Ser Ser Leu Gly Leu Cys Leu Gly Lys Ala Pro Ser Ser Ser

1 5 10 15

Gln Leu Phe Leu Phe Phe Ala Met Gly Ser Asp Val Gln Pro Gly Thr
20 25 30

Glu Met Glu Ile Val Val Glu Glu Thr Ile Ser Val Arg Asp Cys Leu
35 40 45

Lys Leu Met Leu Lys Lys Ser Gly Leu Gln Gly Asp Ala Trp His Leu
50 55 60

Arg Lys Met Asp Trp Cys Tyr Glu Ala Gly Glu Pro Leu Cys Glu Glu
65 70 75 80

Asp Ala Thr Leu Lys Glu Leu Leu Ile Cys Ser Gly Asp Thr Leu Leu

Leu Ile Glu Gly Gln Leu Pro Pro Leu Gly Phe Leu Lys Val Pro Ile Trp Trp Tyr Gln Leu Gln Gly Pro Ser Gly His Trp Glu Ser His Gln Asp Gln Thr Asn Cys Thr Ser Ser Trp Gly Arg Val Trp Arg Ala Thr Ser Ser Gln Gly Glu Asn Arg Met Gly Phe Gln Gln Pro Val His His Lys Glu Lys <210> 3603 <211> 165 <212> PRT <213> Homo sapiens <400> 3603 Met Val Thr Lys Trp Trp Gly Gln Asp Pro Pro Val Gln Leu Arg Ser Gln Leu Met Leu Trp Ile Met Glu Leu Ile Leu Trp Lys Phe Gln Ser Ser Val Val Gly Ser Ser Val Val Thr Trp Lys Ile Ser Asp Val Ala Gly Pro His Gly Asp His Ser Cys Ser Leu Gln His Leu Glu Gln 11e Ile Gly Ser Val Ser Asn Tyr Pro Arg Tyr Thr Gly Ser Arg Ser Cys Asp Arg Gly Glu Asn Pro Val Ser Leu Ser Lys Arg Ile Lys Cys Thr Trp Met Leu Gly Ala Ser Gly Phe Pro Pro Arg Cys Pro Ser Gly Arg Asp His Ser Arg Asp His Pro Gly Lys Ser Gln Val Pro Ala Leu Glu

Leu Ala Asn Gln Leu Ala Ala Trp Gly Leu Trp Ser Ser Val Val Lys

130

Ser Trp Gly Phe Arg Ala Gly Glu Thr Glu Ala Pro Ile Ser Ala Leu

145

Ser Ser Ala His Ala

165

<210> 3604 <211> 107 <212> PRT <213> Homo sapiens

<400> 3604

Met Val Ser Cys Asp Cys Gly Val Cys Glu Ser Arg Ser Ile Leu Val

1 5 10 15

Leu Cys Ala Ser Leu Phe Ala Val Leu Gly Gly Leu Ala Arg Phe Arg
20 25 30

Ile Arg Gly Thr Gly Gly Leu Glu Arg Gly Met Arg Trp Pro Ser Arg
35 40 45

Ala Arg Arg Met Thr Ala Asn Trp Cys Leu Gly Gly Leu Ser Arg Arg 50 55 60

Asn Cys Gly Ala Arg Ala Ala Leu Cys Pro Leu Pro Arg Ser Asn Leu 65 70 75 80

Trp Arg Pro Phe Thr Ala Leu Ala Leu Val Gly Ser Arg Gly Lys Glu

85 90 95

Phe Gly Asn Val Trp Leu Cys Val Thr Met Lys 100 105

<210> 3605

<211> 402

<212> PRT

<213> Homo sapiens

<400> 3605

Met	Cys	Glu	Leu	Asp	He	Leu	His	Asp	Ser	Leu	Tyr	Gln	Phe	Cys	Pro
1				5					10					15	
Glu	Leu	His	Leu	Lys	Arg	Leu	Asn	Ser	Leu	Thr	Leu	Ala	Cys	His	Ala
			20					25					30		
Leu	Leu	Asp	Cys	Lys	Thr	Leu	Thr	Leu	Thr	Glu	Leu	Gly	Arg	Asn	Leu
		35					40					45			
Pro	Thr 50	Lys	Ala	Arg	Thr	Lys 55	His	Asn	lle	Lys	Arg 60	lle	Asp	Arg	Leu
Leu	Gly	Asn	Arg	His	Leu	His	Lys	Glu	Arg	Leu	Ala	Val	Tyr	Arg	Trp
65					70					75					80
His	Ala	Ser	Phe	Ile	Cys	Ser	Gly	Asn	Thr	Met	Pro	Ile	Val	Leu	Val
				85					90					95	
Asp	Trp	Ser	Asp	He	Arg	Glu	Gln	Lys	Arg	Leu	Met	Val	Leu	Arg	Ala
			100					105					110		
Ser	Val	Ala	Leu	His	Gly	Arg	Ser	Val	Thr	Leu	Tyr	Glu	Lys	Ala	Phe
		115					120					125			
Pro	Leu	Ser	Glu	Gln	Cys	Ser	Lys	Lys	Ala	His	Asp	Gln	Phe	Leu	Ala
	130					135					140				
Asp	Leu	Ala	Ser	Ile	Leu	Pro	Ser	Asn	Thr	Thr	Pro	Leu	Ile	Val	Ser
145					150					155					160
Asp	Ala	Gly	Phe	Lys	Val	Pro	Trp	Tyr	Lys	Ser	Val	Glu	Lys	Leu	Gly
				165					170					175	
Trp	Tyr	Trp	Leu	Ser	Arg	Val	Arg	Gly	Lys	Val	Gln	Tyr	Ala	Asp	Leu
			180					185					190		
Gly	Ala		Asn	Trp	Lys	Pro		Ser	Asn	Leu	His		Met	Ser	Ser
_		195					200					205			_
Ser		Ser	Lys	Thr	Leu		Tyr	Lys	Arg	Leu		Lys	Ser	Asn	Pro
	210		0.1			215	-				220		0.1		
	Ser	Cys	GIn	He		Leu	lyr	Lys	Ser	_	Ser	Lys	Gly	Arg	
225	0.1			Æ1	230	æ1		0		235	Б	C	Б	•	240
Asn	GIn	Arg	Ser	Thr	Arg	ihr	HIS	Cys		HIS	Pro	Ser	Pro	-	He
т	C	. 1	C	245	,	6.1	15	т	250		4.7	TI		255	D
tyr	ser	Ala		Ala	Lys	61u	Pro		val	Leu	Ala	Inr		Leu	Pro
V = 1	C1	тэ.	260	т1 .	D.	1.	C1	265	V - 7	Λ.,	тэ.	т	270	1.	۸.
val	010	11e	Arg	Thr	rro	Lys	01n	Leu	vai	ASN	116	1yr 285	ser	Lys	arg

Met Gln Ile Glu Glu Thr Phe Arg Asp Leu Lys Ser Pro Ala Tyr Gly 290 295 300 Leu Gly Leu Arg His Ser Arg Thr Ser Ser Ser Glu Arg Phe Asp Ile 305 310 320 315 Met Leu Leu Ile Ala Leu Met Leu Gln Leu Thr Cys Trp Leu Ala Gly 325 330 335 Val His Ala Gln Lys Gln Gly Trp Asp Lys His Phe Gln Ala Asn Thr 340 345 350 Val Arg Asn Arg Asn Val Leu Ser Thr Val Arg Leu Gly Met Glu Val 355 360 365 Leu Arg His Ser Gly Tyr Thr lle Thr Arg Glu Asp Leu Leu Val Ala 375 Ala Thr Leu Leu Ala Gln Asn Leu Phe Thr His Gly Tyr Ala Leu Gly 385 390 395 400 Lys Leu

<210> 3606

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3606

Met Leu Ser Leu Leu Phe Leu Cys Thr Leu His Leu Ser Leu Ser Leu 1 5 10 15

Pro Ser Leu Arg Leu Thr Leu Thr Pro IIe Arg Leu Ser Ser Leu Pro

20 25 30

Gly Leu Cys Cys Arg Lys Val Pro Gly Thr Ala Leu Ile Thr Ser Ala 35 40 45

Lys Leu Phe Leu Met Ile Tyr Phe Leu Ser Thr Pro Pro Leu Leu Thr 50 55 60

Leu Phe Asn 11e Leu Met Thr Phe Phe Phe Val Ala Pro Pro Leu Asn 65 70 75 80

Leu Leu Asn Lys Thr Tyr Phe Cys Ser Phe Ser IIe Tyr Ser Pro Lys 85 90 95

Asp Ile Gly Tyr Pro Pro Pro Lys Leu Lys Phe Leu Leu His Pro Leu Pro Thr Ser Ala <210> 3607 <211> 217 <212> PRT <213> Homo sapiens <400> 3607 Met Thr Phe Ser Arg Cys Gln Leu Pro Cys Gln Pro Arg Ser Pro Met Glu Thr Val Glu Thr Asn Trp Asp His Val Ser Arg Trp Lys Lys Gly Gly Arg Gly Arg Gly Asp His Tyr Cys Gln Val Ile Gln Lys Arg Ala Glu Pro Pro Ala Leu Arg Arg Glu Thr Leu Asp Ser Gln Gly Asp Ser Gly Lys Gly Asp Ser Ala Gln Thr Pro Ser Val Pro Glu Ala Asn Ser Trp Lys Thr Gly Ala Arg Ala Asn Leu Asn Lys Asn Gly Gly Gly Lys Gly Gly Lys Glu Gly Ser Cys Glu Leu Pro Glu Val Gly Gln Gly Ala Pro Gln Arg Met Gly Cys Tyr Glu Ser Glu Asn Met Ala Thr His Pro Ala Ser Phe lle Tyr Tyr Gln Pro Pro Gln Asn Trp Cys Leu Lys Thr lle lle lle Tyr Val Met Ser Leu Cys Gly Glu Leu Gly Gly Pro Ser Ala Ser Pro Ser Leu Ala Val Ser Ala Val Thr Gly Asp Trp Pro Gly 

Leu Ala Ser Leu Pro Gly Ser Cys Pro Gly Arg Gly Gly Cys Leu Leu

Ser Ala Glu Thr Val Ser Arg Ser Ile Ser Thr Ser Pro His Arg Thr
195 200 205

Ser Ser Cys Thr Thr Gly Ile Ser Ala
210 215

<210> 3608

<211> 777

<212> PRT

<213> Homo sapiens

<400> 3608

Met Leu Asp Met Ser Phe Lys Asp Ala Glu Arg Gly Asp Asp Thr Ser

1 5 10 15

Cys Glu Asn Leu Leu Asp Ala Phe Ser 11e Lys Leu Ser Glu Thr His
20 25 30

Gly Tyr Gly Val Gln Glu Glu Phe Thr Glu Glu Asn Lys Leu Leu Glu 35 40 45

Ala Cys Ile Phe Lys Asn Asn Glu Leu Leu Lys Asn Ile Gln Asp Val
50 55 60

Gln Ser Gln Ile Ser Lys Ile Gly Leu Lys Asp Pro Thr Val Pro Ala 65 70 75 80

Val Lys His Arg Lys Lys Ser Leu Ile Arg Leu Asp Lys Val Leu Asp

85

90

95

Glu Tyr Glu Glu Lys Arg His Leu Gln Glu Met Ala Asn Ser Leu 100 105 110

Pro His Phe Lys Asp Gly Arg Glu Lys Thr Val Asn Gln Gln Cys Gln 115 120 125

Asn Thr Val Val Leu Trp Glu Asn Thr Lys Ala Leu Val Thr Glu Cys 130 135 140

Leu Glu Gln Cys Gly Arg Val Leu Glu Leu Leu Lys Gln Tyr Gln Asn 145 150 155 160

Phe Lys Ser IIe Leu Thr Thr Leu IIe Gln Lys Glu Glu Ser Val IIe 165 170 175

Ser Leu Gln Ala Ser Tyr Met Gly Lys Glu Asn Leu Lys Lys Arg 11e 180 185 190

Ala	Glu	He	Glu	He	Val	Lys	Glu	Glu	Phe	Asn	Glu	His	Leu	Glu	Val
		195					200					205			
Val	Asp	Lys	He	Asn	Gln	Val	Cys	Lys	Asn	Leu	G1n	Phe	Tyr	Leu	Asn
	210					215					220				
Lys	Met	Lys	Thr	Phe	Glu	Glu	Pro	Pro	Phe	Glu	Lys	Glu	Ala	Asn	He
225					230					235					240
He	Val	Asp	Arg	Trp	Leu	Asp	He	Asn	Glu	Lys	Thr	Glu	Asp	Tyr	Tyr
				245					250					255	
Glu	Asn	Leu	Gly	Arg	Ala	Leu	Ala	Leu	Trp	Asp	Lys	Leu	Phe	Asn	Leu
			260					265					270		
Lys	Asn	Val	11e	Asp	Glu	Trp	Thr	Glu	Lys	Ala	Leu	Gln	Lys	Met	Glu
		275					280					285			
Leu	His	G1n	Leu	Thr	Glu	Glu	Asp	Arg	Glu	Arg	Leu	Lys	Glu	Glu	Leu
	290					295					300				
Gln	Val	His	Glu	Gln	Lys	Thr	Ser	Glu	Phe	Ser	Arg	Arg	Val	Ala	Glu
305					310					315					320
He	Gln	Phe	Leu		Gln	Ser	Ser	Glu	He	Pro	Leu	Glu	Leu	Gln	Val
				325					330					335	
Met	Glu	Ser		He	Leu	Asn	Lys	Met	Glu	His	Val	Gln		Cys	Leu
			340					345					350		
Thr	Gly		Ser	Asn	Cys	His		Leu	Ser	Gly	Ser		Ala	Glu	Leu
		355					360					365			
Arg		Asp	Leu	Asp	GIn		Lys	Thr	GIn	He		Met	Thr	Glu	Ser
	370				c	375			c		380	T 1	121	T)	
	Leu	Lys	Ala	Leu		Pro	Ser	Asp	Ser		GIu	11e	Phe	Ihr	
385	C 1	C1	11.	<i>(</i> :1	390	Cl.	31	1	C1	395	1	Ui -	C	Mat	400
Leu	GIU	61u	116	405	GIN	GIII	116	Leu	410	GIN	Lys	nis	ser	мет 415	116
Lou	Lau	Glu	Aen		Ho	Clv	Cve	Leu		Pro	Glu	Lou	Sor		Lou
Leu	Leu	Olu	420	OIII	116	GTY	Cys	425	1111	110	oru	Leu	430	Giu	Leu
Lvs	Lvs	Gln		Glu	Ser	Val	Ser	Asp	Len	Phe	Asn	Thr		lve	Ser
Ey O	L. J. O	435	, , ,	Olu	501	• () 1	440	пор	Lea	THE	11011	445	Lys	L) S	501
Val	Leu		Asp	His	Phe	Ser		Leu	Leu	Asn	Asn		Cvs	lvs	Asn
	450	~- 4 11				455	200	200	200		460	0111	0,0	22 9 55	71011
Phe		Asp	Tro	Phe	Ser		He	Lys	Val	Asn		Lvs	Glu	Cvs	Phe
465		,	•		470			,		475				•	480

Glu	Ser	Ser	Glu		Lys	Lys	Ser	Val	Glu 490	Gln	Lys	Leu	Gln	Lys 495	Leu
		631		485		6.1	0.7						,		., .
Ser	Asp	Phe	500	Ihr	Leu	Glu	GIY	Arg 505	Asn	Ser	Lys	116	Lys 510	GIn	vai
Asp	Ser	Va]	Leu	Lys	His	Val	Lys	Lys	His	Leu	Pro	Lys	Ala	His	Val
		515					520					525			
Lys	Glu	Leu	lle	Ser	Trp	Leu	Val	G1 y	Gln	Glu	Phe	Glu	Leu	Glu	Lys
	530					535					540				
Met	Glu	Ser	He	Cys	Gln	Ala	Arg	Ala	Lys	Glu	Leu	Glu	Asp	Ser	Leu
545					550					555					560
Gln	Gln	Leu	Leu	Arg	Leu	Gln	Asp	Asp	His	Arg	Asn	Leu	Arg	Lys	Trp
				565					570					575	
Leu	Thr	Asn	Gln	Glu	Glu	Lys	Trp	Lys	Gly	Thr	Glu	Glu	Pro	Gly	Glu
			580					585					590		
Lys	Thr	Glu	Leu	Phe	Cys	Gln	Ala	Leu	Ala	Arg	Lys	Arg	Glu	Gln	Phe
		595					600					605			
Glu	Ser	Val	Ala	Gln	Leu	Asn	Asn	Ser	Leu	Lys	Glu	Tyr	Gly	Phe	Thr
	610					615					620				
Glu	Glu	Glu	Glu	Ile	lle	Met	Glu	Ala	Thr	Cys	Leu	Met	Asp	Arg	Tyr
625					630					635					640
Gln	Thr	Leu	Leu	Arg	Gln	Leu	Ser	Glu	11e	Glu	Glu	Glu	Asp	Lys	Leu
				645					650					655	
Leu	Pro	Thr	Glu	Asp	Gln	Ser	Phe	Asn	Asp	Leu	Ala	His	Gly	Val	He
			660					665					670		
His	Trp	He	Lys	Glu	Пе	Lys	Glu	Ser	Leu	Met	Val	Leu	Asn	Ser	Ser
		675					680					685			
Glu	G] y	Lys	Met	Pro	Leu		Glu	Arg	He	Gln	Lys	He	Lys	Glu	He
	690					695					700				
	Leu	Leu	Lys	Pro	Glu	Gly	Asp	Ala	Arg	He	Glu	Thr	He	Thr	Lys
705					710					715					720
Gln	Ala	Glu	Ser		Glu	Ala	Pro	Leu		Gln	Lys	Thr	Leu		Asp
				725					730					735	
He	Ser	Asn		Trp	Asp	Asn	Thr		His	Leu	Ala	Ser	Thr	Tyr	Leu
		<i>.</i>	740					745		0.7		<b>a</b>	750		
Ser	His		Glu	Lys	Leu	Leu		Glu	GIy	Glu	Lys		Leu	Gln	Ser
		755					760					765			

Lys Glu Asp Leu Arg Leu Met Leu 11e 770 775

<210> 3609 <211> 274 <212> PRT <213> Homo sapiens <400> 3609 Met Leu Glu Asp Ile Ala Ser Pro Arg Pro Pro Ala Glu Gly Phe Ile Asp Glu Thr Pro Asn Phe lle lle Pro Ala Gln Arg Ala Glu Pro Met Arg Ile Val Arg Gln Pro Thr Pro Pro Pro Gly Asp Leu Glu Pro Pro Phe Gln Pro Ser Ala Leu Pro Ala Asp Pro Leu Glu Ser Pro Pro Thr Ala Pro Asp Pro Ala Leu Glu Leu Pro Ser Thr Pro Pro Pro Ser Ser Leu Leu Arg Pro Arg Leu Ser Pro Trp Gly Leu Ala Pro Leu Phe Arg Ser Val Arg Ser Lys Leu Glu Ser Phe Ala Asp lle Phe Leu Thr Pro Asn Lys Thr Pro Gln Pro Pro Pro Pro Ser Pro Pro Met Lys Leu Glu Leu Lys lle Ala lle Ser Glu Ala Glu Gln Ser Gly Ala Ala Glu Gly Thr Ala Ser Val Ser Pro Arg Pro Pro lle Arg Gln Trp Arg Thr Gln Asp His Asn Thr Pro Ala Leu Leu Pro Lys Pro Ser Leu Gly Arg Ser

Tyr Ser Cys Pro Asp Leu Gly Pro Pro Gly Pro Gly Thr Cys Thr Trp

Pro Pro Ala Pro Pro Gln Pro Ser Arg Pro Arg Pro Arg Arg His Thr

Val Gly Gly Glu Met Ala Arg Ala Pro Pro Pro Pro Arg Pro Cys Leu Arg Lys Glu Val Phe Pro Leu Gly Gly Val Gly Ala Ser Pro Ser Leu Thr Thr Ser Cys Ser Ser Thr Ala Ser Thr Ser Phe Ser Gly Pro Ala Glu Pro Arg Glu Gly Ala Lys Ser Leu Lys Gly Pro Gly Ala Phe 

Arg Thr

<210> 3610

<211> 497

<212> PRT

<213> Homo sapiens

<400> 3610

Met Asp Asn Arg Gln Asn Val Thr Pro Ala Leu Ile Phe Ala Ile Thr Val Ala Thr lle Gly Ser Phe Gln Phe Gly Tyr Asn Thr Gly Val Ile Asn Ala Pro Glu Thr Ile lle Lys Glu Phe lle Asn Lys Thr Leu Thr Asp Lys Ala Asn Ala Pro Pro Ser Glu Val Leu Leu Thr Asn Leu Trp Ser Leu Ser Val Ala Ile Phe Ser Val Gly Gly Met lle Gly Ser Phe Ser Val Gly Leu Phe Val Asn Arg Phe Gly Arg Arg Asn Ser Met Leu lle Val Asn Leu Leu Ala Ala Thr Gly Gly Cys Leu Met Gly Leu Cys Lys lle Ala Glu Ser Val Glu Met Leu lle Leu Gly Arg Leu Val Ile 

Gly Leu Phe Cys Gly Leu Cys Thr Gly Phe Val Pro Met Tyr Ile Gly

Glu	He	Ser	Pro	Ihr	Ala	Leu	Arg	Gly	Ala	Phe	Gly	lhr	Leu	Asn	GIn
145					150					155					160
Leu	Gly	He	Val	He	Gly	11e	Leu	Val	Ala	Gln	He	Phe	G1 y	Leu	Glu
				165					170					175	
Leu	11e	Leu	Gly	Ser	Glu	G1u	Leu	Trp	Pro	Val	Leu	Leu	G1 y	Phe	Thr
			180					185					190		
He	Leu	Pro	Ala	Пе	Leu	Gln	Ser	Ala	Ala	Leu	Pro	Cys	Cys	Pro	Glu
		195					200					205			
Ser	Pro	Arg	Phe	Leu	Leu	Ile	Asn	Arg	Lys	Lys	Glu	Glu	Asn	Ala	Thr
	210					215					220				
Arg	He	Leu	Gln	Arg	Leu	Trp	Gly	Thr	Gln	Asp	Val	Ser	Gln	Asp	lle
225					230					235					240
Gln	Glu	Met	Lys	Asp	Glu	Ser	Ala	Arg	Met	Ser	Gln	Glu	Lys	Gln	Val
				245					250					255	
Thr	Val	Leu	Glu	Leu	Phe	Arg	Val	Ser	Ser	Tyr	Arg	Gln	Pro	Пе	He
			260					265					270		
Ile	Ser	lle	Val	Leu	Gln	Leu	Ser	Gln	Gln	Leu	Ser	Gly	Пе	Asn	Ala
		275					280					285			
Val		Tyr	Tyr	Ser	Thr	Gly	Пе	Phe	Lys	Asp	Ala	Gly	Val	G1n	Gln
	290					295					300				
Pro	lle	Tyr	Ala	Thr	Пе	Ser	Ala	Gly	Val		Asn	Thr	Пе	Phe	
305					310					315					320
Leu	Leu	Ser	Leu		Leu	Val	Glu	Arg		Gly	Arg	Arg	Thr		His
				325					330	_				335	
Met	He	Gly		G1 y	Gly	Met	Ala		Cys	Ser	Thr	Leu		Thr	Val
	_		340	_			_	345					350		
Ser	Leu		Leu	Lys	Asn	His	-	Asn	Gly	Met	Ser		Val	Cys	He
0.1		355		1	DI		360	0	DI	61	7.1	365	Б	0.1	15
Gly		He	Leu	Val	Phe	Val	Ala	Cys	Phe	Glu		Gly	Pro	61 y	Pro
7.1	370 D	т	DI		12 1	375	C.1		101	C	380	C 1	D		ь
	Pro	Trp	Phe	11e		Ala	Glu	Leu	Phe		61n	Gly	Pro	Arg	
385	A 1	16.4	41.	V . 1	390	C1	C	C	Δ	395	ть	C		131	400
нта	ита	Met	нта		лта	Gly	Cys	ser		тър	HDF	ser	ASN		Leu
Va1	61	Lou	1	405	Dana	Sa	Λ1~	A 1 ~	410	T	1	C1	А1	415	V.a.1
v d l	оту	Leu	420	rne	110	Ser	MIN	A1a 425	1 y 1	1 ) 1	ren	01 y		ryr.	rai
			120					420					430		

 Phe
 11e
 Phe
 Phe
 Phe
 Leu
 11e
 Phe
 Leu
 A1a
 Phe
 Leu
 Phe
 Phe
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 A1a
 Phe
 Phe
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 A1a
 A1a
 Phe
 A1a
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<210> 3611

<211> 888

<212> PRT

<213> Homo sapiens

<400> 3611

130

Met Leu Leu Asn Gly Asp Cys Pro Glu Ser Leu Lys Lys Glu Ala Ala 1 5 10 15 Ala Ala Glu Pro Pro Arg Glu Asn Gly Leu Asp Glu Ala Gly Pro Gly 25 Asp Glu Thr Thr Gly Gln Glu Val lle Val lle Gln Asp Thr Gly Phe 35 45 Ser Val Lys Ile Leu Ala Pro Gly Ile Glu Pro Phe Ser Leu Gln Val 55 60 Ser Pro Gln Glu Met Val Gln Glu Ile His Gln Val Leu Met Asp Arg 70 75 Glu Asp Thr Cys His Arg Thr Cys Phe Ser Leu His Leu Asp Gly Asn 85 90 95 Val Leu Asp His Phe Ser Glu Leu Arg Ser Val Glu Gly Leu Gln Glu 105 Gly Ser Val Leu Arg Val Val Glu Glu Pro Tyr Thr Val Arg Glu Ala 115 120 125 Arg Ile His Val Arg His Val Arg Asp Leu Leu Lys Ser Leu Asp Pro

140

Ser	Asp	Ala	Phe	Asn	Gly	Val	Asp	Cys	Asn	Ser	Leu	Ser	Phe	Leu	Ser
145					150					155					160
Val	Phe	Thr	Asp	Gly	Asp	Leu	G1 y	Asp	Ser	Gly	Lys	Arg	Lys	Lys	Gly
				165					170					175	
Leu	Glu	Met	Asp	Pro	Пе	Asp	Cys	Thr	Pro	Pro	Glu	Tyr	He	Leu	Pro
			180					185					190		
Gly	Ser	Arg	Glu	Arg	Pro	Leu	Cys	Pro	Leu	Gln	Pro	Gln	Asn	Arg	Asp
		195					200					205			
Trp	Lys	Pro	Leu	Gln	Cys	Leu	Lys	Val	Leu	Thr	Thr	Ser	Gly	Trp	Asn
	210					215					220				
Pro	Pro	Pro	Gly	Asn	Arg	Lys	Met	His	Gly	Asp	Leu	Met	Tyr	Leu	Phe
225					230					235					240
Val	lle	Thr	Ala	Glu	Asp	Arg	G1n	Val	Ser	He	Thr	Ala	Ser		Arg
				245					250					255	
Gly	Phe	Tyr		Asn	Gln	Ser	Thr		Tyr	His	Phe	Asn		Lys	Pro
		_	260					265					270		
Ala	Ser		Arg	Phe	Leu	Ser		Ser	Leu	Val	Glu		Leu	Asn	GIn
		275	m.	D)			280	D)				285	,		
He		Pro	Thr	Phe	Lys	Lys	Asn	Phe	Ala	Val		GIn	Lys	Lys	Arg
V 3	290	۸	11.2	D	nı	295	A	T1.	A 1	Tl	300	nl	C1	V 1	Т
	GIN	Arg	HIS	Pro		Glu	Arg	11e	Ala		Pro	Pne	GIN	vai	
305	т	Tl	A 1 -	D	310	A 1 -	C1	11.: -	A 1	315	A	Cua	V = 1	Λ	320
261	irp	1111	мта	325	GIII	Ala	Gju	BIS	330	wet	ASP	Cys	vai	335	MIA
Clu	Acn	Λla	Tyr		Sor	Arg	Lou	C1v		Clu	Glu	Hic	По		Clv
Olu	nsp	MIG	340	1 111	361	ni g	Leu	345	ıyı	Olu	oru	1113	350	110	Oly
Gln	Thr	Arσ		Trn	Asn	Glu	Glu		Gln	Thr	Thr	Arø		Leu	Pro
0111	••••	355	пор	пр	71011	014	360	Вод	0111	• • • • •		365	0.0	200	.10
Arg	Lvs		Leu	Pro	Glu	Arg		Leu	Arg	Glu	Arg		He	Phe	Lvs
0	370					375			0		380				- 2
Val		Ser	Asp	Phe	Thr	Ala	Ala	Ala	Thr	Arg		Ala	Met	Ala	Va]
385					390					395					400
	Asp	Gly	Asn	Val		Ala	He	Asn	Pro	Ser	G] u	Glu	Thr	Lys	Met
	•			405					410					415	
Gln	Met	Phe	11e	Trp	Asn	Asn	lle	Phe	Phe	Ser	Leu	Gly	Phe	Asp	Val
٠			420					425					430		

Arg	Asp		Tyr	Lys	Asp	Phe		Gly	Asp	Val	Ala		Tyr	Val	Ala
	m,	435				0.7	440		m)	æ.		445	,, ,		
Pro	Thr	Asn	Asp	Leu	Asn	G1 y	Val	Arg	Thr	Tyr	Asn	Ala	Val	Asp	Val
	450					455					460				
Clu	450	Lau	Tun	Tha	Lou	455	The	Vol	Vol	Vol	460	Tun	Ana	C1 v	Tur
465	GIY	Leu	1 ) [	1111	470	Gly	1111	val	val	475	nsp	1 y I	vi. Ř	G1 y	480
	Val	Thr	Ala	G1n		Ile	Tle	Pro	Glv		Leu	Glu	Arσ	Asn	
ni g	, 41		ma	485	001	110	110	110	490	110	LCG	014	m 8	495	OIII
Glu	Gln	Ser	Val		Tvr	Gly	Ser	Ile		Phe	Gly	Lvs	Thr		Val
			500		- 3 -	3		505	•		J		510		
Ser	His	Pro		Tyr	Leu	Glu	Leu		Glu	Arg	Thr	Ser		Pro	Leu
		515	-				520					525	-		
Lys	He	Leu	Arg	His	Gln	Val	Leu	Asn	Asp	Arg	Asp	Glu	Glu	Val	Glu
	530					535					540				
Leu	Cys	Ser	Ser	Val	Glu	Cys	Lys	Gly	Ile	He	Gly	Asn	Asp	Gly	Arg
545					550					555					560
His	Tyr	He	Leu	Asp	Leu	Leu	Arg	Thr	Phe	Pro	Pro	Asp	Leu	Asn	Phe
				565					570					575	
Leu	Pro	Val		Gly	Glu	Glu	Leu	Pro	Glu	Glu	Cys	Ala	Arg	Ala	Gly
			580					585					590		
Phe	Pro		Ala	His	Arg	His		Leu	Cys	Cys	Leu		Gln	Glu	Leu
		595	D.				600				151	605			
Val		Ala	Phe	Val	GIu	His	Arg	Tyr	Leu	Leu		Met	Lys	Leu	Ala
۸1.	610	C1	1	V - 4	C1	615	Λ	A 1 -	C	C1	620	C1	Tl	D	C
625	Leu	GIN	Leu	мет		Gln	Asn	Ala	ser			GIU	ınr	Pro	640
	Lau	Glu	Aen	Glv	630	Pro	Sor	Sor	Lou	635		Lve	Sar	Glu	•
261	Leu	Olu	поп	645	GLy	110	261	261	650	Olu	261	Lys	261	655	лэр
Pro	Pro	Glv	Gln		Ala	Gly	Ser	Glu		Glu	Glv	Ser	Ser		Ser
		3 7	660	-14		~ 4 3	~~,	665	-10	u	~- * ;	-0,	670		- +-
G1v	Leu	Ala		Val	Lys	Glu	Leu		Glu	Thr	11e	Ala		Asp	Лsp
•		675	-				680					685		•	•
Gly	Thr		Pro	Arg	Ser	Arg		Val	He	Arg	Asn		Cys	Lys	Ala
	690					695					700				
Val	Glv	Ser	He	Ser	Ser	Thr	Ala	Phe	Asp	He	Arg	Phe	Asn	Pro	Asp

705 710 715 720 Ile Phe Ser Pro Gly Val Arg Phe Pro Glu Ser Cys Gln Asp Glu Val 730 725 Arg Asp Gln Lys Gln Leu Leu Lys Asp Ala Ala Ala Phe Leu Leu Ser 740 745 750 Cys Gln Ile Pro Gly Leu Val Lys Asp Cys Met Glu His Ala Val Leu 760 Pro Val Asp Gly Ala Thr Leu Ala Glu Val Met Arg Gln Arg Gly Ile 770 775 Asn Met Arg Tyr Leu Gly Lys Val Leu Glu Leu Val Leu Arg Ser Pro 790 795 Ala Arg His Gln Leu Asp His Val Phe Lys Ile Gly Ile Gly Glu Leu 805 810 lle Thr Arg Ser Ala Lys His lle Phe Lys Thr Tyr Leu Gln Gly Val 830 820 825 Glu Leu Ser Gly Leu Ser Ala Ala Ile Ser His Phe Leu Asn Cys Phe 840 845 Leu Ser Ser Tyr Pro Asn Pro Val Ala His Leu Pro Ala Asp Glu Leu 850 855 Val Ser Lys Glu Arg Asn Lys Arg Arg Lys Thr Gly Pro Arg Gly Leu 870 875 880 Gln Ile Thr Gln Pro Gly Leu Ser 885

<210> 3612

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3612

Met Arg Asp Thr Gly Ser Cys Leu Ser Leu Asn 11e Pro Pro Ala Gly

1 5 10 15

Gly His Lys Gly Ala Asp Ala Ala Asp Val Ser Ser Gly Ala Met Gly

20 25 30

His Arg His Pro Ala Gly Ser Glu Ala Ala Glu Ser Pro Gly Val Thr

Phe Pro Ala Gly Thr Arg Asn Thr Gly Ser Cys Thr Phe Pro Leu Ser Arg Arg Arg Trp Val Ile Thr Gly Phe Thr Ser Phe Pro Leu Gln Met Pro Asp Gly Pro Gly Met Thr Ala Ala Ser Gly Lys Leu Tyr Gln Phe Arg His Pro Val Arg <210> 3613 <211> 149 <212> PRT <213> Homo sapiens <400> 3613 Met Val Leu Leu Leu Ser Leu Asp Phe Trp Ser Val Lys Asn Val Thr Gly Arg Leu Leu Val Gly Leu Arg Trp Trp Asn Gln Ile Asp Glu Asp Gly Lys Ser His Trp lle Phe Glu Ala Arg Lys Val Ser Pro Asn Ser Ile Ala Ala Thr Glu Ala Glu Ala Arg lle Phe Trp Leu Gly Leu Ile Ile Cys Pro Met Ile Trp Ile Val Phe Phe Phe Ser Thr Leu Phe Ser Leu Lys Leu Lys Trp Leu Ala Leu Val Val Ala Gly Ile Ser Leu Gln Ala Ala Asn Leu Tyr Gly Tyr Ile Leu Cys Lys Met Gly Gly Asn Ser Asp Ile Gly Lys Val Thr Ala Ser Phe Leu Ser Gln Thr Val Phe Gln Thr Ala Cys Pro Gly Asp Phe Gln Lys Pro Gly Leu Glu Gly Leu Glu Ile His Gln His

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	210					215					220				
Asp	Thr	Ala	His	Ala	lle	Ile	Ala	Ala	Glu	Leu	Asp	Pro	Glu	Phe	Asn
225					230					235					240
Lys	Leu	Cys	Glu	Glu	lle	Lys	Glu	Ala	Arg	lle	Lys	Arg	Gly	Leu	Ser
				245					250					255	
Val	Thr	Ser	Glu	Gln	11e	Asn	Pro	His	Ser	Thr	Gly	Ala	Arg	Lys	Thr
			260					265					270		
Glu	Thr	Arg	Val	Glu	Glu	Ala	Phe	Arg	His	Lys	Gln	Arg	Asn	Pro	Met
		275					280					285			
Asp	Val	Trp	His	Asn	Ser	Ala	Asn	Lys	Cys	Ala	Phe	Arg	Val	Arg	Arg
	290					295					300				
Lys	Ser	Arg	Arg	Arg	Ser	Gln	Trp	Gly	Lys	Gly	lle	lle	Lys	Lys	Arg
305					310					315					320
Lys	Val	Asn	Asn	Leu	Lys	Lys	Asp	Glu	Glu	Asp	Thr	Lys	Phe	Λla	Asp
				325					330					335	
Tyr	Glu	Asn	His	Thr	Glu	Asp	Arg	Lys	Leu	Leu	Glu	Asn	Gly	Glu	Phe
			340					345					350		
Glu	Val	Ser	Thr	Asp	Cys	His	Glu	Glu	Asn	Gly	Glu	Glu	Thr	Gly	Asp
		355					360					365			
Leu	Ser	Met	Thr	Asn	Asp	Glu	Ser	Ser	Cys	Asp	lle	Met	Asp	Leu	Asp
	370					375					380				
Gln	Gly	Gln	Arg	Leu	Asn	Asn	Gly	Ala	Gly	Thr	Lys	Glu	Asn	Phe	Ala
385					390					395					400
Ser	Thr	Glu	Glu	Glu	Ser	Ser	Asn	Glu	Ser	Leu	Leu	Val	Asn	Ser	Ser
				405					410					415	
Ser	Ser	Leu	Asn	Pro	Glu	Gln	Thr	Ser	Arg	Lys	Glu	Thr	Phe	Leu	Lys
			420					425					430		
G1 y	Asn	Cys	Leu	Asn	Gly	G] u	Ala	Ser	Thr	Asp	Ser	Phe	Glu	Gly	He
		435					440					445			
Pro	Val	Leu	Glu	Cys	Gln	Asn	Gly	Lys	Leu	Glu	Val	Val	Ser	Phe	Cys
	450					455					460				
Asp	Ser	Gly	Asp	Lys		Ser	Ser	Glu	Gln	Lys	He	Leu	Leu	Glu	Asp
465					470					475					480
Gln	Ser	Lys	Glu		Pro	Glu	Thr	Ser		Glu	Asn	His	G1 y	Asp	Asp
				485					490					495	•
Leu	Glu	Lys	Leu	Glu	Ala	Leu	Glu	Cys	Ser	Asn	Asn	Glu	Lys	Leu	Glu

Pro Gly Ser Asp Val Glu Val Lys Asp Ala Glu Leu Asp Lys Glu Gly Ala Ser Lys Val Lys Lys Tyr Arg Lys Leu Ile Leu Glu Gln Ala Lys Thr Thr Ser Leu Glu Leu Val Pro Glu Glu Pro Ser Glu Pro Val Pro Pro Leu Ile Val Asp Arg Glu Arg Leu Lys Lys Leu Leu Asp Leu Leu Val Asp Lys Ser Asn Asn Leu Ala Val Asp Gln Leu Glu Arg Leu Tyr Ser Leu Leu Ser Gln Cys 11e Tyr Arg His Arg Lys Asp Tyr Asp Lys Ser Gln Leu Val Glu Glu Met Glu Arg Thr Val His Met Phe Glu Thr Phe Leu <210> 3615 <211> 131 <212> PRT <213> Homo sapiens <400> 3615 Met Asp Met Phe Thr Cys Leu Cys Val Arg Thr Tyr Ser Arg Val Cys Asp Thr Ala Ile Phe Thr Arg Leu Cys Asp Thr Ala Ile Phe Thr Arg Leu Cys Asp Thr Asp Ile His Ala Phe Val Cys Arg Thr Tyr Ser His lle Cys Val Tyr Gly His lle His Ala Phe Val lle Gln Thr Tyr Ser Arg 11e Cys Val Tyr Arg His Ser Arg Val Cys Val 11e Arg 11e Tyr

Ser Arg lle Cys Asp Thr Asp Ile Phe Thr Arg Leu Cys Asp Thr Ala

Ile Phe Thr Cys Leu Cys Asp Thr Asp Ile His Ala Phe Val Cys Arg Thr Tyr Ser Arg Val Cys Val Tyr Arg His Ile His Ser Leu Glu Arg Val Glu Ser <210> 3616 <211> 929 <212> PRT <213> Homo sapiens <400> 3616 Met Thr Ala Ser Ser Val Glu Gln Leu Arg Lys Glu Gly Asn Glu Leu Phe Lys Cys Gly Asp Tyr Gly Gly Ala Leu Ala Ala Tyr Thr Gln Ala Leu Gly Leu Asp Ala Thr Pro Gln Asp Gln Ala Val Leu His Arg Asn Arg Ala Ala Cys His Leu Lys Leu Glu Asp Tyr Asp Lys Ala Glu Thr Glu Ala Ser Lys Ala lle Glu Lys Asp Gly Gly Asp Val Lys Ala Leu Tyr Arg Arg Ser Gln Ala Leu Glu Lys Leu Gly Arg Leu Asp Gln Ala Val Leu Asp Leu Gln Arg Cys Val Ser Leu Glu Pro Lys Asn Lys Val Phe Gln Glu Ala Leu Arg Asn Ile Gly Gly Gln Ile Gln Glu Lys Val Arg Tyr Met Ser Ser Thr Asp Ala Lys Val Glu Gln Met Phe Gln Ile Leu Leu Asp Pro Glu Glu Lys Gly Thr Glu Lys Lys Gln Lys Ala Ser 

Gln Asn Leu Val Val Leu Ala Arg Glu Asp Ala Gly Ala Glu Lys Ile

				165					170					175	
Phe	Arg	Ser	Asn	Gly	Val	Gln	Leu	Leu	Gln	Arg	Leu	Leu	Asp	Met	Gly
			180					185					190		
Glu	Thr	Asp	Leu	Met	Leu	Ala	Ala	Leu	Arg	Thr	Leu	Val	Gly	lle	Cys
		195					200					205			
Ser	Glu	His	Gln	Ser	Arg	Thr	Val	Ala	Thr	Leu	Ser	lle	Leu	Gly	Thr
	210					215					220				
Arg	Arg	Va]	Val	Ser	Ile	Leu	Gly	Val	Glu	Ser	Gln	Ala	Val	Ser	Leu
225					230					235					240
Ala	Ala	Cys	His	Leu	Leu	Gln	Val	Met	Phe	Asp	Ala	Leu	Lys	Glu	Gly
				245					250					255	
Val	Lys	Lys	Gly	Phe	Arg	Gly	Lys	Glu	Gly	Ala	Ile	lle	Val	Asp	Pro
			260					265					270		
Ala	Arg	Glu	Leu	Lys	Val	Leu	Пе	Ser	Asn	Leu	Leu	Asp	Leu	Leu	Thr
		275					280					285			
Glu	Val	Gly	Val	Ser	Gly	Gln	Gly	Arg	Asp	Asn	Ala	Leu	Thr	Leu	Leu
	290					295					300				
He	Lys	Ala	Val	Pro	Arg	Lys	Ser	Leu	Lys	Asp	Pro	Asn	Asn	Ser	Leu
305					310					315					320
Thr	Leu	Trp	Va]	11e	Asp	Gln	Gly	Leu	Lys	Lys	He	Leu	Glu	Val	Gly
				325					330					335	
Gly	Ser	Leu	G1n	Asp	Pro	Pro	Gly	Glu	Leu	Ala	Val	Thr	Ala	Asn	Ser
			340					345					350		
Arg	Met	Ser	Ala	Ser	Пе	Leu	Leu	Ser	Lys	Leu	Phe	Asp	Asp	Leu	Lys
		355					360					365			
Cys	Asp	Ala	Glu	Arg	Glu	Asn	Phe	His	Λrg	Leu	Cys	Glu	Asn	Tyr	lle
	370					375		•			380				
Lys	Ser	Trp	Phe	Glu	G1 y	Gln	Gly	Leu	Ala	Gly	Lys	Leu	Arg	Ala	He
385					390					395					400
Gln	Thr	Val	Ser	Cys	Leu	Leu	Gln	Gly	Pro	Cys	Asp	Ala	Gly	Asn	Arg
				405					410					415	
Ala	Leu	Glu	Leu	Ser	Gly	Val	Met	Glu	Ser	Val	He	Ala	Leu	Cys	Ala
			420					425					430		
Ser	Glu	G1n	G1u	Glu	Glu	Gln	Leu	Val	Ala	Val	Glu	Ala	Leu	He	His
		435					440					445			
Ala	A 1 a	C1 v	Lvc	Alc	Lvc	1200	A 1 o	Sar	Dho	116	Than	A10	Acr	Clu	$V \sim 1$

450					455					460				
Leu	Leu	Lys	Asp	Leu	Tyr	Lys	Cys	Ser	Glu	Lys	Asp	Ser	He	Arg
				470					475					480
Arg	Ala	Leu	Val	Gly	Leu	Cys	Lys	Leu	Gly	Ser	Ala	Gly	Gly	Thr
			485					490					495	
Phe	Ser	Met	Lys	Gln	Phe	Ala	Glu	Gly	Ser	Thr	Leu	Lys	Leu	Ala
		500					505					510		
Gln	Cys	Arg	Lys	Trp	Leu	Cys	Asn	Asp	Gln	He	Asp	Ala	Gly	Thr
	515					520					525			
Arg	Trp	Ala	Val	Glu	Gly	Leu	Ala	Tyr	Leu	Thr	Phe	Asp	Ala	Asp
530					535					540				
Lys	Glu	Glu	Phe	Va]	Glu	Asp	Ala	Ala	Ala	Leu	Lys	Ala	Leu	Phe
				550					555					560
Leu	Ser	Arg	Leu	Glu	Glu	Arg	Ser	Val	Leu	Phe	Ala	Val	Ala	Ser
			565					570					575	
Leu	Val	Asn	Cys	Thr	Asn	Ser	Tyr	Asp	Tyr	Glu	Glu	Pro	Asp	Pro
		580					585					590		
Met	Val	Glu	Leu	Ala	Lys	Tyr	Ala	Lys	Gln	His	Val	Pro	Glu	Gln
	595					600					605			
	Lys	Asp	Lys	Pro	Ser	Phe	Val	Arg	Ala	Arg	Val	Lys	Lys	Leu
610					615					620				
Ala	Ala	G1 y	Val		Ser	Ala	Met	Va]		Met	Val	Lys	Thr	Glu
														640
Pro	Val	Leu		Ser	Ser	Cys	Arg		Leu	Leu	Ser	Arg		Phe
Ala	Leu		Glu	Glu	Val	Glu		Arg	Gly	Thr	Val		Ala	GIn
C1	C1		. 1			D			,	<b>61</b>	0.1			., .
Gly		Arg	Ala	Leu	He		Leu	Ala	Leu	Glu		lhr	Asp	Val
C1		1	41.	41 -	C1		1	A1.	1 .	1		11.	т)	C
	Inr	Lys	Ala	дта		Ala	Leu	Ala	Lys		ınr	116	ınr	ser
	Chi	Mot	Than	Dha		C1	C1	Ama	Па		C1	Vol	Vol.	A 22 cr
110	Giu	жет	1 11.1		110	GIY	GIU	Arg		1 9 1	Gju	vaj	val	
Lou	Val	Sor	Lov		ніс	Lou	Acr	Cvc		Clv	Lou	Cln	Acn	720 Pho
Leu	101	J61		Leu	1115	Leu	Vell		261	оту	Leu	GIII		THE
Als	l au	Met		Leo	Thr	Aen	lau	-	Glv	He	Ser	Glo		Leu
	Leu Arg Phe Gln Arg 530 Lys Leu Met Pro 610 Ala Pro Gly Gln 690 Pro	Leu Leu Arg Ala Phe Ser Gln Cys 515 Arg Trp 530 Lys Glu Leu Ser Leu Val Ala S95 Pro Lys 610 Ala Ala Pro Val Ala Leu Gly Gly 675 Gln Thr 690 Pro Glu Leu Val	Leu       Leu         Arg       Ala       Leu         Phe       Ser       Met       500         Gln       Cys       Arg       515       Arg         Arg       Trp       Ala       630         Leu       Ser       Arg         Leu       Val       Asn       580         Met       Val       Glu       595         Pro       Lys       Asp       610         Pro       Val       Gly       Arg         610       Val       Gly       Arg         610       Arg       660       Arg         Gly       Gly       Arg       675         Gln       Thr       Lys       690         Pro       Glu       Met         Leu       Val       Ser	Leu       Leu       Asp         Arg       Ala       Leu       Val         485         Phe       Ser       Met       Lys         500       July       Lys         500       July       Lys         61n       Cys       Lys         Arg       Lys       Leu         530       July       Leu         Leu       Asn       Cys         580       July       Leu         595       July       Leu         Ala       Ala       Glu       Leu         Ala       Ala       Gly       Val         Ala       Ala       Gly       Val         Ala       Leu       Thr       645         Ala       Leu       Thr       645         Ala       Leu       Thr       645         Ala       Arg       Ala       Ala         Gly       Arg       Ala	Leu       Leu       Asp       Leu       470         Arg       Ala       Leu       Val       Gly         Phe       Ser       Met       Lys       Gln         500       -       Trp       500       Trp         Gln       Cys       Arg       Lys       Trp         Arg       Trp       Ala       Val       Glu         S30       -       -       550         Leu       Ser       Arg       Leu       Glu         Leu       Val       Asp       Leu       Ala         S95       -       -       -         Pro       Lys       Asp       Lys       Pro         610       -       -       630         Pro       Val       Leu       Thr       Ser         Ala       Ala       Leu       Glu       Glu         Ala       Leu       Val       Glu       Glu         Ala       Leu       Ala       Leu         Ala       Ala       Leu       Ala         Ala       Ala       Ala       Leu         Ala       Ala       Ala       Leu <t< td=""><td>Leu       Leu       Asp       Leu       170         Arg       Ala       Leu       470       Leu         Arg       Ala       Leu       485       Leu         Phe       Ser       Met       Lys       Glu       Phe         500       Leu       Trp       Leu       Glu       Glu         Arg       Lys       Trp       Leu       Glu       Glu         530       Leu       Fro       535       Glu       Asn       Esc       Leu       Asn       Leu       Asn       Leu       Asn       Esc       Glu       Esc       Esc       Glu       Esc       E</td><td>Leu       Leu       Leu       Heu       Tyr       Lys         Arg       Ala       Leu       Val       Gly       Leu       Cys         Arg       Ala       Lys       Gly       Phe       Ala         Flm       Ser       Met       Lys       Gly       Phe       Ala         Gly       Arg       Lys       Trp       Leu       Cys         Arg       Ala       Yal       Gly       Leu       Gly       Arg         Leu       Ser       Arg       Leu       Gly       Arg       A</td><td>Leu       Leu       Leu       Leu       Tyr       Lys       Cys         Arg       Ala       Leu       Val       Gly       Leu       Cys       Lys         Arg       Ala       Leu       Lys       Gln       Phe       Ala       Glu         Bre       Ser       Met       Lys       Gln       Phe       Ala       Glu         Glu       Cys       Arg       Lys       Try       Leu       Cys       Arg         Lys       Glu       Glu       Phe       Val       Glu       Arg       Ala         Say       Arg       Leu       Glu       Glu       Arg       Ala         Leu       Arg       Leu       Glu       Glu       Arg       Arg         Leu       Arg       Arg       Leu       Arg       Arg       Arg       Arg         Met       Val       Arg       A</td><td>Leu       Leu       Leu       Tyr       Lys       Cys       Ser         Arg       Ala       Leu       470       Leu       Leu       Leu       490         Phe       Arg       Lys       Glu       Leu       Lys       Leu       490         Phe       Ser       Met       Lys       Glu       Phe       Ala       Glu       Ago         Glu       Cys       Arg       Lys       Trp       Leu       Cys       Asn       Asp         Arg       Try       Ala       Glu       Glu       Glu       Ala       Ala         Lys       Glu       Glu       Phe       Val       Glu       Arg       Ala         Lys       Glu       Arg       Cys       Try       Asp       Ala       Ala         Leu       Val       Glu       Ala       Ala       Lys       Try       Ala       Arg         Leu       Val       Ala       Lys       Try       Ala       Lys       Arg         Leu       Val       Ala       Lys       Arg       Arg       Arg         Leu       Ala       Ala       Ala       Ala       Arg       A</td><td>Leu       Leu       Tyr       Lys       Cys       Ser       Glu         Ar       170       170       170       175       475         Ar       Ala       Leu       Val       Gly       Leu       Cys       Leu       Gly         Ar       Ala       Lys       Lys       Gly       Phe       Ala       Gly       Ser       Gly       Ser         Ar       Ser       Met       Lys       Gly       Phe       Ala       Gly       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Leu       Ala       Ala<!--</td--><td>Leu       Leu       L</td><td>Leu         Leu         Asp         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp           Arg         Leu         470         Leu         Cys         Leu         Glu         Ser         Ala           Arg         Leu         485         Leu         Cys         Leu         Glu         Ser         Mat         Leu         Asp         490         Leu         Ala         Ala</td><td>Leu         Leu         Leu         Heu         Free Here         1470         Leu         1475         Leu         475         Leu         148         Leu         475         Leu         475         Leu         475         Leu         475         Leu         475         Leu         470         Leu         480         Leu         480         Leu         480         Leu         480         Leu         490         Leu         410         <td< td=""><td>Leu         Leu         Ley         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp         Leu         11e           Arg         Leu         Leu         Val         Gly         Leu         Cys         Lys         Leu         Gly         Ser         Ala         Gly         Gly         Agg           Phe         Ser         Met         Lys         Gln         Phe         Ala         Glu         Gly         Agg         Lys         Leu         Agg         Lys         Lys</td></td<></td></td></t<>	Leu       Leu       Asp       Leu       170         Arg       Ala       Leu       470       Leu         Arg       Ala       Leu       485       Leu         Phe       Ser       Met       Lys       Glu       Phe         500       Leu       Trp       Leu       Glu       Glu         Arg       Lys       Trp       Leu       Glu       Glu         530       Leu       Fro       535       Glu       Asn       Esc       Leu       Asn       Leu       Asn       Leu       Asn       Esc       Glu       Esc       Esc       Glu       Esc       E	Leu       Leu       Leu       Heu       Tyr       Lys         Arg       Ala       Leu       Val       Gly       Leu       Cys         Arg       Ala       Lys       Gly       Phe       Ala         Flm       Ser       Met       Lys       Gly       Phe       Ala         Gly       Arg       Lys       Trp       Leu       Cys         Arg       Ala       Yal       Gly       Leu       Gly       Arg         Leu       Ser       Arg       Leu       Gly       Arg       A	Leu       Leu       Leu       Leu       Tyr       Lys       Cys         Arg       Ala       Leu       Val       Gly       Leu       Cys       Lys         Arg       Ala       Leu       Lys       Gln       Phe       Ala       Glu         Bre       Ser       Met       Lys       Gln       Phe       Ala       Glu         Glu       Cys       Arg       Lys       Try       Leu       Cys       Arg         Lys       Glu       Glu       Phe       Val       Glu       Arg       Ala         Say       Arg       Leu       Glu       Glu       Arg       Ala         Leu       Arg       Leu       Glu       Glu       Arg       Arg         Leu       Arg       Arg       Leu       Arg       Arg       Arg       Arg         Met       Val       Arg       A	Leu       Leu       Leu       Tyr       Lys       Cys       Ser         Arg       Ala       Leu       470       Leu       Leu       Leu       490         Phe       Arg       Lys       Glu       Leu       Lys       Leu       490         Phe       Ser       Met       Lys       Glu       Phe       Ala       Glu       Ago         Glu       Cys       Arg       Lys       Trp       Leu       Cys       Asn       Asp         Arg       Try       Ala       Glu       Glu       Glu       Ala       Ala         Lys       Glu       Glu       Phe       Val       Glu       Arg       Ala         Lys       Glu       Arg       Cys       Try       Asp       Ala       Ala         Leu       Val       Glu       Ala       Ala       Lys       Try       Ala       Arg         Leu       Val       Ala       Lys       Try       Ala       Lys       Arg         Leu       Val       Ala       Lys       Arg       Arg       Arg         Leu       Ala       Ala       Ala       Ala       Arg       A	Leu       Leu       Tyr       Lys       Cys       Ser       Glu         Ar       170       170       170       175       475         Ar       Ala       Leu       Val       Gly       Leu       Cys       Leu       Gly         Ar       Ala       Lys       Lys       Gly       Phe       Ala       Gly       Ser       Gly       Ser         Ar       Ser       Met       Lys       Gly       Phe       Ala       Gly       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Ser       Gly       Leu       Ala       Ala </td <td>Leu       Leu       L</td> <td>Leu         Leu         Asp         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp           Arg         Leu         470         Leu         Cys         Leu         Glu         Ser         Ala           Arg         Leu         485         Leu         Cys         Leu         Glu         Ser         Mat         Leu         Asp         490         Leu         Ala         Ala</td> <td>Leu         Leu         Leu         Heu         Free Here         1470         Leu         1475         Leu         475         Leu         148         Leu         475         Leu         475         Leu         475         Leu         475         Leu         475         Leu         470         Leu         480         Leu         480         Leu         480         Leu         480         Leu         490         Leu         410         <td< td=""><td>Leu         Leu         Ley         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp         Leu         11e           Arg         Leu         Leu         Val         Gly         Leu         Cys         Lys         Leu         Gly         Ser         Ala         Gly         Gly         Agg           Phe         Ser         Met         Lys         Gln         Phe         Ala         Glu         Gly         Agg         Lys         Leu         Agg         Lys         Lys</td></td<></td>	Leu       L	Leu         Leu         Asp         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp           Arg         Leu         470         Leu         Cys         Leu         Glu         Ser         Ala           Arg         Leu         485         Leu         Cys         Leu         Glu         Ser         Mat         Leu         Asp         490         Leu         Ala         Ala	Leu         Leu         Leu         Heu         Free Here         1470         Leu         1475         Leu         475         Leu         148         Leu         475         Leu         475         Leu         475         Leu         475         Leu         475         Leu         470         Leu         480         Leu         480         Leu         480         Leu         480         Leu         490         Leu         410 <td< td=""><td>Leu         Leu         Ley         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp         Leu         11e           Arg         Leu         Leu         Val         Gly         Leu         Cys         Lys         Leu         Gly         Ser         Ala         Gly         Gly         Agg           Phe         Ser         Met         Lys         Gln         Phe         Ala         Glu         Gly         Agg         Lys         Leu         Agg         Lys         Lys</td></td<>	Leu         Leu         Ley         Leu         Tyr         Lys         Cys         Ser         Glu         Lys         Asp         Leu         11e           Arg         Leu         Leu         Val         Gly         Leu         Cys         Lys         Leu         Gly         Ser         Ala         Gly         Gly         Agg           Phe         Ser         Met         Lys         Gln         Phe         Ala         Glu         Gly         Agg         Lys         Leu         Agg         Lys         Lys

Arg Gln Lys Ile Leu Lys Glu Lys Ala Val Pro Met Ile Glu Gly Tyr Met Phe Glu Glu His Glu Met lle Arg Arg Ala Ala Thr Glu Cys Met Cys Asn Leu Ala Met Ser Lys Glu Val Gln Asp Leu Phe Glu Ala Gln Gly Asn Asp Arg Leu Lys Leu Leu Val Leu Tyr Ser Gly Glu Asp Asp Glu Leu Leu Gln Arg Ala Ala Ala Gly Gly Leu Ala Met Leu Thr Ser Met Arg Pro Thr Leu Cys Ser Arg Ile Pro Gln Val Thr Thr His Trp Leu Glu Ile Leu Gln Ala Leu Leu Ser Ser Asn Gln Glu Leu Gln His Arg Gly Ala Val Val Leu Asn Met Val Glu Ala Ser Arg Glu lle Ala Ser Thr Leu Met Glu Ser Glu Met Met Glu Ile Leu Ser Val Leu Ala Lys Gly Asp His Ser Pro Val Thr Arg Ala Ala Ala Ala Cys Leu Asp Lys Ala Val Glu Tyr Gly Leu Ile Gln Pro Asn Gln Asp Gly Glu

<210> 3617

<211> 527

<212> PRT

<213> Homo sapiens

<400> 3617

Met Glu Cys Leu Cys Ala His Pro Pro Ala Gly Leu Gln His Leu Gly

1 5 10 15

Leu Gly His Asn Lys Leu Leu Gly Pro Leu Glu Ser Leu Tyr Val Thr

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Ala	Asn	His	Trp	Gly	Arg	Val	Arg	Leu	Gly	Leu	Gly	Asp	Ala	Val	Leu
		35					40					45			
Thr	Ala	Ala	Ala	Cys	Val	Phe	Leu	Leu	Phe	Ser	Glu	Leu	Arg	Ser	Ile
	50					55					60				
Cys	Phe	Leu	Val	Cys	Gly	Ser	Arg	Leu	Leu	Ala	Pro	Cys	Ser	Pro	G1y
65					70					75					80
Phe	Leu	Thr	Pro	Arg	Arg	Ser	Cys	Ser	Pro	Ser	Arg	Pro	Asn	Leu	Val
				85					90					95	
Ser	Leu	Asp	Leu	Gly	Phe	Asn	Asp	Leu	Thr	Asp	Leu	Gln	Ser	Met	Val
			100					105					110		
Thr	Ser	Leu	Arg	Thr	Leu	Arg	His	Leu	Arg	Leu	Leu	Val	Leu	Lys	Gly
		115					120					125			
Asn	Pro	Leu	Ala	Leu	Val	Pro	Tyr	Tyr	Arg	Gly	Leu	Thr	lle	Asp	Ser
	130					135					140				
Leu	Ala	Gln	Leu	Cys	Val	Leu	Asp	Asp	Пе	Thr	Val	Ser	Pro	Asn	Glu
145					150					155					160
Lys	His	Leu	Phe	Arg	Gly	Leu	Ser	Leu	Asn	G1 y	Asp	Leu	Leu	Ala	Gln
				165					170					175	
Glu	Ala	Gln	Phe	Val	Val	Thr	11e	Gly	Asn	He	Arg	Gly	Val	Leu	Asp
			180					185					190		
Thr	Ser	Val	Leu	Asp	Pro	Glu	Pro	Arg	Pro	Glu	Gly	Pro	Phe	He	Thr
		195					200					205			
Tyr		Tyr	Tyr	Val	Thr	Tyr	Asp	Phe	Val	Lys	Asp	Glu	Glu	Gly	G]u
	210					215					220				
	Asn	Glu	Ser	Ala			Leu	Ala	G]u			Lys	Pro	Ser	
225					230					235					240
Ser	Leu	Glu	Leu		Val	Glu	Glu	Ser		Glu	Glu	Va]	Val		Asp
				245					250					255	
Val	He	G]u		He	Val	GJu	Glu		Thr	Glu	Glu	Val		Gly	Ser
	0.7		260				_	265		_			270		
Leu	Glu		Glu	Val	Glu	Glu	Ser	Gly	Glu	Ser	Glu		Ser	Val	He
C	0.1	275	0	(D)			280					285			
26L		Pro	Ser	Ihr	He		Gln	Met	Pro	Arg		Ser	Ala	Glu	Glu
	290	,				295	3.7				300	0		0	Б
Leu	Ala	Lys	Leu	Arg	Leu	Arg	11e	Asp	Pro	Arg	Leu	Cys	Pro	5er	Pro

Gly Thr Val Leu Phe Ser Thr Ala His Lys Pro Trp Ala Glu Val Ile Pro Cys Ser Tyr Glu Met Gln His Ser Leu Arg Asp Leu Val Pro Leu Lys Ala Phe Leu Leu Ala Gly Thr Thr Val Thr lle Val Glu Glu Lys lle Leu Ser Trp Pro Val Val Leu Pro Ala Val Asp Ser Pro Leu Ser Ala Lys Lys Gly Lys Gly Glu Lys Asp Lys Gly Lys Glu Lys Asp Arg Thr Gly Lys Glu Lys Glu Pro Ala Lys Glu Trp Lys Val Leu Lys Lys Lys Glu Pro Pro Lys Glu Leu Arg Gln Asn Pro Pro Ile Leu Gln Val Leu Gly Arg Gly Leu Val Ile Leu Glu Pro Leu Leu Ala Gly Glu Pro Leu Val Ser Thr Val Cys Asn Phe Gly Val Val Arg Thr Leu Thr Ser Asp Arg Leu Thr Leu Ala Arg Asp Ser Lys Lys lle Lys Lys Val Ala Lys Lys Glu Lys Pro Lys Ala Val Ile Pro Ile Tvr Glu Gly Asp Tyr His Pro Glu Pro Leu Thr Val Glu Val Gln lle Gln Leu Asn Gln Cys Arg Ser Ala Glu Glu Ala Leu Arg Met Phe Ala Val 

<210> 3618

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3618

Met Arg Lys Ala Tyr Ser Pro Leu Gln Val Leu Arg Gly Cys Leu Leu

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Leu Pro	Ser	Leu	Leu	His	Ala	Leu	Ser	Leu	Gln	Glu	Gln	Pro	Met	Va]
		20					25					30		
Trp Pro	Leu	Thr	Arg	Gly	Pro	Ser	Ser	Ala	Ser	Asp	Ala	Leu	Ser	Ser
	35					40					45			
Gly Gly	Pro	Tyr	His	Pro	Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr
50					55					60				
Lys Ile	Pro	Arg	Gln	Arg	Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln
65				70					75					80
Cys Ser	Lys	Pro	G1 y	Ile	Val	Phe	He	Thr	Lys	Arg	Gly	His	Ser	Val
			85					90					95	
Cys Thr	Asn		Ser	Asp	Lys	Trp	Val	Gln	Asp	Tyr	Пе	Lys	Asp	Met
		100					105					110		
Lys Glu														
	115													
Z010\ 0	C10													
<210> 3														
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\210/ II	Omo .	sapro	211.5											
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Met Ala		Tyr	G1n	Gln	Glu	Glu	Gln	Met	Gln	Leu	Pro	Arg	Ala	Asp
1		•	5					10					15	•
Ala lle	Arg	Ser	Arg	Leu	lle	Asp	Thr	Phe	Ser	Leu	He	Glu	His	Leu
		20					25					30		
Gln Gly	Leu	Ser	Gln	Ala	Val	Pro	Arg	His	Thr	He	Arg	Glu	Leu	Leu
	35					40					45			
Asp Pro	Ser	Arg	Gln	Lys	Lys	Leu	He	Leu	Gly	Asp	Gln	His	GIn	Leu
50					55					60				
Val Arg	Phe	Ser	He	Lys	Pro	Gln	Arg	He	Glu	Gln	He	Ser	His	Ala
65				70					75					80
GIn Arg	Leu	Leu	Ser	Arg	Leu	His	Val	Arg	Cys	Ser	GIn	Arg	Pro	Pro
			85					90					95	
Leu Ser	Leu	Trp	Ala	Gly	Trp	Val	Leu	Glu	Cys	Pro	Leu	Phe	Lys	Asn

			100					105					110		
Phe	He	Ile	Phe	Leu	Val	Phe	Leu	Asn	Thr	He	Ile	Leu	Met	Val	Glu
		115					120				•	125			
lle	Glu	Leu	Leu	Glu	Ser	Thr	Asn	Thr	Lys	Leu	Trp	Pro	Leu	Lys	Leu
	130					135					140				
Thr	Leu	Glu	Val	Ala	Ala	Trp	Phe	He	Leu	Leu	He	Phe	lle	Leu	Glu
145					150					155					160
Ile	Leu	Leu	Lys	Trp	Leu	Ser	Asn	Phe	Ser	Va]	Phe	Trp	Lys	Ser	Ala
				165					170					175	
Trp	Asn	Val	Phe	Asp	Phe	Val	Val	Thr	Met	Leu	Ser	Leu	Leu	Pro	Glu
			180					185					190		
Val	Val	Val	Leu	Val	Gly	Val	Thr	Gly	Gln	Ser	Val	Trp	Leu	G1n	Leu
		195					200					205			
Leu	Arg	Ile	Cys	Arg	Val	Leu	Arg	Ser	Leu	Lys	Leu	Leu	Ala	Gln	Phe
	210					215					220				
Arg	Gln	lle	Gln	Ile	Ile	He	Leu	Val	Leu	Val	Arg	Ala	Leu	Lys	Ser
225					230					235					240
Met	Thr	Phe	Leu	Leu	Met	Leu	Leu	Leu	Пе	Phe	Phe	Tyr	He	Phe	Ala
				245					250					255	
Val	Thr	Gly	Val	Tyr	Val	Phe	Ser	Glu	Tyr	Thr	Arg	Ser	Pro	Arg	Gln
			260					265					270		
Asp	Leu	Glu	Tyr	His	Val	Ser	Phe	Ser	Asp	Leu	Pro	Asn	Ser	Leu	Val
		275					280					285			
Thr	Val	Phe	lle	Leu	Phe	Thr	Leu	Asp	His	Trp	Tyr	Ala	Leu	Leu	Gln
	290					295					300				
Asp	Val	Trp	Lys	Val	Pro	Glu	Val	Ser	Arg	He	Phe	Ser	Ser	He	Tyr
305															320
Phe	He	Leu	Trp	Leu	Leu	Leu	Gly	Ser	lle	He	Phe	Arg	Ser	He	He
				325					330					335	
Val	Ala	Met		Val	Thr	Asn	Phe		Asn	He	Arg	Lys		Leu	Asn
			340					345					350		
G]u	Glu		Ala	Arg	Arg	Glu		Gln	Leu	Lys	Ala	Asp	Met	Phe	Lys
		355					360					365			···
Arg		He	He	Gln	Arg		Lys	Asn	Met	Ser		Glu	Ala	Leu	Thr
	370					375			0.7		380		٥.		0.7
Ser	Ser	His	Ser	Lys	He	GLu	Asp	Arg	Gly	Ala	Ser	Gln	GIn	Arg	Glu

385 390 395 400 Ser Leu Asp Leu Ser Glu Val Ser Glu Val Glu Ser Asn Tyr Gly Ala 410 Thr Glu Glu Asp Leu 11e Thr Ser Ala Ser Lys Thr Glu Glu Thr Leu 420 425 430 Ser Lys Lys Arg Glu Tyr Gln Ser Ser Pro Cys Val Ser Ser Thr Ser 440 Ser Ser Tyr Ser Ser Ser Glu Ser Arg Phe Ser Glu Ser 11e Gly 450 455 Arg Leu Asp Trp Glu Thr Leu Val His Glu Asn Leu Pro Gly Leu Met 470 475 Glu Met Asp Gln Asp Asp Arg Val Trp Pro Arg Asp Ser Leu Phe Arg 490 485 Tyr Phe Glu Leu Leu Glu Lys Leu Gln Tyr Asn Leu Glu Glu Arg Lys 500 505 510 Lys Leu Gln Glu Phe Ala Val Gln Ala Leu Met Asn Leu Glu Asp Lys 515 520 525

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<211> 279

<212> PRT

<213> Homo sapiens

<400> 3620

Met Phe Arg Leu Trp Leu Leu Leu Ala Gly Leu Cys Gly Leu Leu Ala 1 5 10 15

Ser Arg Pro Gly Phe Gln Asn Ser Leu Leu Gln Ile Val Ile Pro Glu 20 25 30

Lys lle Gln Thr Asn Thr Asn Asp Ser Ser Glu lle Glu Tyr Glu Gln
35 40 45

11e Ser Tyr 11e 11e Pro 11e Asp Glu Lys Leu Tyr Thr Val His Leu 50 55 60

Lys Gln Arg Tyr Phe Leu Ala Asp Asn Phe Met lle Tyr Leu Tyr Asn 65 70 75 80

Gln Gly Ser Met Asn Thr Tyr Ser Ser Asp lle Gln Thr Gln Cys Tyr

				85					90					95	
Tyr	Gln	Gly	Asn	He	Glu	Gly	Tyr	Pro	Asp	Ser	Met	Val	Thr	Leu	Ser
			100					105					110		
Thr	Cys	Ser	G1y	Leu	Arg	G] y	He	Leu	Gln	Phe	Glu	Asn	Val	Ser	Tyr
		115					120					125			
Gly	He	Glu	Pro	Leu	Glu	Ser	Ala	Val	Glu	Phe	Gln	His	Val	Leu	Tyr
	130					135					140				
Lys	Leu	Lys	Asn	Glu	Asp	Asn	Asp	Ile	Ala	Ile	Phe	He	Asp	Arg	Ser
145					150					155					160
Leu	Lys	Glu	Gln	Pro	Met	Asp	Asp	Asn	Ile	Phe	He	Ser	Glu	Lys	Ser
				165					170					175	
Glu	Pro	Ala	Val	Pro	Asp	Leu	Phe	Pro	Leu	Tyr	Leu	Glu	Met	His	He
			180					185					190		
Val	Val	Лsp	Lys	Thr	Leu	Tyr	Asp	Tyr	Trp	Gly	Ser	Asp	Ser	Met	Пе
		195					200					205			
Va]	Thr	Asn	Lys	Val	He	Glu	He	Val	Gly	Leu	Ala	Asn	Ser	Met	Phe
	210					215					220				
Thr	Gln	Phe	Lys	Val	Thr	Ile	Val	Leu	Ser	Ser	Leu	Glu	Leu	Trp	Ser
225					230					235					240
Asp	Glu	Asn	Lys	He	Ser	Thr	Val	Gly	Glu	Ala	Asp	Trp	Arg	Glu	Met
				245					250					255	
Lys	Ser	Va]	He	Val	Val	Leu	Arg	Leu	Asn	Val	Asp	Leu	Gln	Ala	Val
			260					265					270		
Val	He	Phe	Glu	Leu	Val	Tyr									
		275													
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(21)	) 16	31													

101

<212> PRT

<213> Homo sapiens

<400> 3621

Met Ile Ser Val Val Leu Cys Trp Glu Glu Glu Thr Ala Gly Asn His

1 5 10 15

Arg Lys Leu Val Gln Gly Ala Pro Met Lys Lys Ser Gln Ala Arg Leu

25 20 30 Leu Arg Arg Arg Gly Pro Gly Asn Pro Thr Pro Gly Phe Pro Leu Gly 40 45 Val Gly Gln Ser Gln Leu Gln Asp Pro Ala Thr Ala Ala Arg Phe Pro 55 Glu Cys Trp Arg Ser Pro Leu Arg Gly Arg Gly Arg Ala Leu Ser Ser 70 75 Arg Thr Arg Ala Pro Pro Pro Arg Pro Gly Pro Leu Thr Val Glu Ala 90 85 Phe His Leu Trp Leu Leu Ala Leu Gly Leu Leu Gln Pro Leu Gly 100 105 Phe Ala Ala Leu Leu Ala Val Glu His Glu Ala Gln His Gly Asn Asp 120 125 Val Gly His Ser Gly Thr His Arg Gln Pro Asn Gly Leu Asp His Leu 130 135 140 Val Gly Gly Arg Ala Ala Arg Ala Leu Arg Leu Leu Arg His Arg Leu 150 155 Val

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<213> Homo sapiens

<400> 3622

Met Gly Asp Trp Asn Leu Leu Gly Asp Thr Leu Glu Glu Val His Ile

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His Ser Thr Met 11e Gly Lys 11e Trp Leu Thr 11e Leu Phe 11e Phe
20 25 30

Arg Met Leu Val Leu Gly Val Ala Ala Glu Asp Val Trp Asn Asp Glu 35 40 45

Gln Ser Gly Phe 11e Cys Asn Thr Glu Gln Pro Gly Cys Arg Asn Val 50 55 60

Cys Tyr Asp Gln Ala Phe Pro Ile Ser Leu Ile Arg Tyr Trp Val Leu

65					70					75					80
Gln	Val	He	Phe	Val	Ser	Ser	Pro	Ser	Leu	Val	Tyr	Met	Gly	His	Ala
				85					90					95	
Leu	Tyr	Arg	Leu	Arg	Val	Leu	Glu	Glu	Glu	Arg	Gln	Arg	Met	Lys	Ala
			100					105					110		
Gln	Leu	Arg	Val	Glu	Leu	Glu	Glu	Val	Glu	Phe	Glu	Met	Pro	Arg	Asp
		115					120					125			
Arg	Arg	Arg	Leu	Glu	Gln	Glu	Leu	Cys	Gln	Leu	Glu	Lys	Arg	Lys	Leu
	130					135					140				
Asn	Lys	Ala	Pro	Leu	Arg	Gly	Thr	Leu	Leu	Cys	Thr	Tyr	Val	Ile	His
145					150					155					160
lle	Phe	Thr	Arg	Ser	Val	Val	Glu	Val	Gly	Phe	Met	lle	Gly	Gln	Tyr
				165					170					175	
Leu	Leu	Tyr	Gly	Phe	His	Leu	Glu	Pro	Leu	Phe	Lys	Cys	His	Gly	His
			180					185					190		
Pro	Cys	Pro	Asn	He	He	Asp	Cys	Phe	Va]	Ser	Arg	Pro	Thr	Glu	Lys
		195					200					205			
Thr	He	Phe	Leu	Leu	Phe	Met	Ģln	Ser	Ile	Ala	Thr	Ile	Ser	Leu	Phe
	210					215					220				
	Asn	He	Leu	Glu		Phe	His	Leu	Gly	Phe	Lys	Lys	He	Lys	Arg
225					230					235					240
Gly	Leu	Trp	Gly	Lys	Tyr	Lys	Leu	Lys	Lys	Glu	His	Asn	Glu	Phe	His
				245					250					255	
Ala	Asn	Lys		Lys	Gln	Asn	Val		Lys	Tyr	G1n	Ser	Thr	Ser	Ala
			260			_	_	265					270		
Asn	Ser		Lys	Arg	Leu	Pro		Ala	Pro	Asp	Tyr		Leu	Leu	Val
C1	,	275	T)		m)		280	æ.	Б			285			
Glu		GIn	Thr	His	lhr	Ala	Val	Tyr	Pro	Ser		Asn	Ser	Ser	Ser
17 1	290 Di	C1	D		D	295			0		300		0.1		
	Phe	GIn	Pro	Asn		Asp	Asn	H1S	Ser		Asn	Asp	Glu	Lys	
305	1	Λ	C1	C1	310	TI.	V 1		C .	315	C1		C	TI	320
116	Leu	ASP	GIU		GIU	Thr	vai	Leu		ASI	61 <b>u</b>	116	ser		Leu
Sor	Thr	Sor	Cvc	325 Sor	Hic	Dha	Cl <sub>5</sub>	Hic	330	San	S.~	1.00	100	335	1 ,
961	1111	261	340	261	1118	Phe	OIII	345	116	ser.	Sel.	ASII	350	ASII	LYS
Asn	Thr	His		Πρ	Phe	G1 v	lve		Len	Aen	G1 v	Asn		Leu	Met
		4 8 4 9 9				~ · ·					Y		- 111	11111	marie L.

Glu Lys Arg Glu Thr Glu Gly Lys Asp Ser Lys Arg Asn Tyr Tyr Ser Arg Gly His Arg Ser Ile Pro Gly Val Ala Ile Asp Gly Glu Asn Asn Met Arg Gln Ser Pro Gln Thr Val Phe Ser Leu Pro Ala Asn Cys Asp Trp Lys Pro Arg Trp Leu Arg Ala Thr Trp Gly Ser Ser Thr Glu His Glu Asn Arg Gly Ser Pro Pro Lys Val Pro Gly Ser Lys Ala Thr Ala Ser Ser Leu Leu Leu Ile Leu Gln Arg Pro Thr Ser Ser Gln Pro Arg Leu Lys Glu Thr Pro Lys Ile Lys Ala Glu Ala Lys Ile Tyr Asp Ser Lys His Pro Pro Gln Leu Leu Gln Ser Thr Val Ser Thr Phe Ser Gly Arg Glu Pro Arg Ser Pro Ala Pro Met Gly His His Ser Phe Arg Gly Pro Arg

<210> 3623

<211> 345

<212> PRT

<213> Homo sapiens

<400> 3623

 Met
 Ser
 Glu
 Asn
 Glu
 Leu
 Asp
 Thr
 Thr
 Leu
 His
 Leu
 Lys
 Cys
 Lys
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50					55					60				
Cys	Phe	Gln	Glu	Ser	Gln	Pro	Leu	Gln	Val	He	Phe	Asp	Lys	Asn
				70					75					80
Cys	Thr	Asn	Thr	Leu	Met	He	Gln	Pro	Arg	Leu	Leu	Ala	Asp	Ala
			85					90					95	
Val	Leu	Phe	Thr	Ser	Ser	Gln	Glu	Glu	Val	Thr	Leu	Ala	Val	Thr
		100					105					110		
Leu	Asn	Phe	Cys	Leu	Lys	Ser	Ser	Asn	Glu	Glu	Ser	Met	Asp	Leu
	115					120					125			
Asn	Ala	Val	His	Ser	Glu	Met	Phe	Val	Gly	Ser	Asp	Glu	Phe	Asp
130					135					140				
Phe	Gln	He	Gly	Met	Asp	Thr	Glu	He	Thr	Phe	Cys	Phe	Lys	Glu
				150					155					160
Lys	Gly	He	Leu	Thr	Phe	Ser	Glu	Ala	Thr	His	Ala	Pro	11e	Ser
			165					170					175	
Tyr	Phe	Asp	Phe	Pro	Gly	Lys	Pro	Leu	Ala	Leu	Ser	He	Asp	Asp
		180					185					190		
Leu	Val	Glu	Ala	Asn	Phe	lle	Leu	Ala	Thr	Leu	Ala	Asp	Glu	Gln
	195					200					205			
	Ala	Ser	Ser	Pro		Ser	Leu	Cys	Leu		Gln	Lys	Arg	Lys
					215					220				
Ser	Asp	Leu	He		Lys	Lys	Ala	Gly		Asn	Val	Thr	Gly	
														240
Leu	Glu	Cys		Ser	Lys	Lys	Ala		Pro	Arg	Arg	Leu		Pro
0.1	mı.				7.1				0.1			0.1		
Glu	Thr		Thr	Asn	He	Ser		Leu	Glu	Asn	Cys		Ser	Pro
14 .			V. 1		61			C	C.1	M 1	C		C	C
Met		Arg	Val	Asp	Gly		Val	Ser	Glu	Val		Glu	Ser	Ser
C		ть	C1	C1	V - 1		C1	C	1	C		Λ	I	DI
	ASI	mr	GIU	GIU		Pro	Gly	ser	Leu		Leu	Arg	Lys	rne
	Mot	Dho	Dho	Cly		Vo.1	San	Con	Aan		C1n	C1	lli o	Dho
Cys	мес	THE	THE		ліа	vai	361	361		OIII	0111	Oju	111.5	320
Hie	Pro	Pho	Aen		Leu	Als	Ara	Ala		Aen	Ser	Glu	Glu	
1113	110	1 116		JUI	Leu	111 d	m g		JU1	nsh	JC1	Giu		nah
Asn	Asn	Glv		Phe	Ser	lle	Phe						2.70	
	Cys Cys Val Leu Asn 130 Phe Lys 210 Ser Leu Glu Met Ser 290 Cys His	Cys Phe Cys Thr Val Leu Leu Asn 115 Asn Ala 130 Phe Gln Lys Gly Tyr Phe Leu Val 195 Arg Ala 210 Ser Asp Leu Glu Glu Thr Met Lys 275 Ser Asn 290 Cys Met	Cys       Phe       Gln         Cys       Thr       Asn         Val       Leu       Phe         100       Phe       100         Leu       Asn       Phe         115       Val         130       Ile         Lys       Gly       Ile         Lys       Gly       Ile         Tyr       Phe       Asp         180       Heu       Glu         Leu       Val       Glu         195       Arg       Leu         Arg       Ala       Ser         210       Cys         Asp       Leu         Leu       Cys         Glu       Thr       Leu         260       Arg       275         Ser       Asn       Thr         290       Thr       Phe         His       Pro       Phe	Cys       Thr       Asn       Thr       85         Val       Leu       Phe       Thr       100       100       100       100       100       100       100       100       100       100       115       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100        100       1	Cys       Phe       Gln       Gln       Ser         Cys       Thr       Asn       Thr       Leu       85         Val       Leu       Phe       Thr       Ser         100       100       100       Leu       Leu         Leu       Asn       Phe       Cys       Leu       Leu       Asr       Phe       1150       Phe       150       Phe       150       Phe       Phe       150       Phe       Phe       150       Phe       Phe       150       Phe       Phe       Phe       Phe       150       Phe       P	Cys       Phee       Gln       Gln       Top       Top         Cys       Thr       Asn       Thr       Leu       Met         Val       Leu       Phe       Thr       Ser       Ser         Lou       Asn       Phe       Cys       Leu       Lys         Leu       Asn       Phe       Cys       Leu       Lys         Asn       Ala       Val       His       Ser       Glu         130       Interpretation       <	Cys       Phe Bole       Glu       Ser Too       Glu       Proposition         Cys       Thr       Asn       Thr       Leu       Meet       11 e         Wal       Leu       Phe       Thr       Ser       Ser       Glu         Leu       Asn       Phe       Cys       Leu       Lys       Ser         Asn       Phe       Cys       Leu       Lys       Ser         Asn       Phe       Gly       Mee       Asp       Phe         Asn       Phe       Gly       Phe       Phe       Ser         Asn       Phe       Asn       Phe       Phe       11e         Ary       Phe       Phe       Phe       Phe       11e         Ary       Phe       P	Cys       Phe Reserve 1       Glu Reserve 1	Cys       Phe       Gln       Gln       Ser       Gln       Pro       Leu       Hon       Pro       Pro         Cys       Thr       Asn       Thr       Leu       Met       11e       Gln       Pro         Val       Leu       Thr       Ser       Ger       Ger       Ger       Asn         Leu       Asn       Phe       Cys       Leu       Lys       Ser       Ser       Asn         Asn       Ala       Val       His       Ser       Glu       Met       Pro       Val         Asn       Ala       Val       His       Ser       Glu       Met       Pro       Val         Asn       Ala       Val       His       Ser       Glu       Met       Pro       Val         Asn       Ala       Asn       Phe       Pro       Ber       Glu       Asn       Pro       Glu       Asn       Pro       Asn       Pro       Glu       Asn       Pro       Leu       Asn       Pro       Asn       Pro       Leu       Asn       Asn       Asn       Pro       Leu       Asn       Asn       Asn       Asn       Asn       Asn       Asn       A	Cys       Phe Roy       Glu       Glu       Ser       Glu       Pro       Leu       Glu       Pro       75         Cys       Thr       Ser       Heu       Het       Het       Glu       Pro       Arg         Val       Leu       Phe       Thr       Ser       Ser       Glu       Glu       Val         Val       Leu       Phe       Thr       Ser       Ser       Gu       Arg       Val         Leu       Asa       Phe       Cys       Leu       Lys       Ser       Ser       Asa       Glu         Asa       Ala       Val       His       Ser       Glu       Met       Phe       Val       Gly         Asa       Ala       Val       His       Ser       Glu       Met       Phe       Val       Gly         Asa       Ala       His       Gly       Asa       Thr       His       Inc       Inc <td< td=""><td>Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         Ile           Cys         Thr         Asn         Thr         Leu         Met         Gln         Gln         Pro         Arg         Leu           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Val         Thr           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Val         Thr           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Phe         Glu         Jul         His         Phe         Iul         Jul         Jul         Phe         Iul         Jul         Jul</td><td>Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         Ile         Phe           Cys         Thr         Asn         Thr         Leu         Met         Ile         Gln         Pro         Arg         Leu         Leu           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Glu         Val         Thr         Leu           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu         Ser           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Val         Gly         Ser         Asp           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Val         Gly         Ser         Asp         Asp</td><td>Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         11e         Phe         Asp           Cys         Thr         Asn         Thr         Leu         Met         11e         Gln         Pro         Arg         Leu         Leu         Ala           Val         Leu         Phe         Thr         Ser         Ser         Glu         Glu         Glu         Thr         Leu         Ala           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu</td><td>Cys         Fig. 1         Glu         Ser 1         Glu         Fig. 1         Fig. 1</td></td<>	Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         Ile           Cys         Thr         Asn         Thr         Leu         Met         Gln         Gln         Pro         Arg         Leu           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Val         Thr           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Val         Thr           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Phe         Glu         Jul         His         Phe         Iul         Jul         Jul         Phe         Iul         Jul         Jul	Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         Ile         Phe           Cys         Thr         Asn         Thr         Leu         Met         Ile         Gln         Pro         Arg         Leu         Leu           Val         Leu         Phe         Thr         Ser         Ser         Gln         Glu         Glu         Val         Thr         Leu           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu         Ser           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Val         Gly         Ser         Asp           Asn         Ala         Val         His         Ser         Glu         Met         Phe         Val         Gly         Ser         Asp         Asp	Cys         Phe         Gln         Gln         Ser         Gln         Pro         Leu         Gln         Val         11e         Phe         Asp           Cys         Thr         Asn         Thr         Leu         Met         11e         Gln         Pro         Arg         Leu         Leu         Ala           Val         Leu         Phe         Thr         Ser         Ser         Glu         Glu         Glu         Thr         Leu         Ala           Leu         Asn         Phe         Cys         Leu         Lys         Ser         Ser         Asn         Glu         Glu	Cys         Fig. 1         Glu         Ser 1         Glu         Fig. 1         Fig. 1

340 345

<210> 3624 <211> 718 <212> PRT <213> Homo sapiens

20

<400> 3624

Met Val Gly Lys Ser Gln Gln Thr Asp Val Ile Glu Lys Lys Lys His 1 5 10 15

Met Ala Ile Pro Lys Ser Ser Ser Pro Lys Ala Thr His Arg Ile Gly

Asn Thr Ser Gly Ser Lys Gly Ser Tyr Ser Ala Lys Ala Tyr Glu Ser 35 40 45

25

30

Ile Arg Val Ser Ser Glu Leu Gln Gln Thr Trp Thr Lys Arg Lys His
50 55 60

Gly Gln Glu Met Thr Ser Lys Ser Leu Gln Thr Asp Thr Ile Val Glu
65 70 75 80

Glu Lys Lys Glu Val Lys Leu Val Glu Glu Thr Val Val Pro Glu Glu

85 90 95

Lys Ser Ala Asp Val Arg Glu Ala Ala Ile Glu Leu Pro Glu Ser Val 100 105 110

Gln Asp Val Glu Ile Pro Pro Asn Ile Pro Ser Val Gln Leu Lys Met 115 120 125

Asp Arg Ser Gln Gln Thr Ser Arg Thr Gly Tyr Trp Thr Met Met Asn 130 135 140

11e Pro Pro Val Glu Lys Val Asp Lys Glu Gln Gln Thr Tyr Phe Ser 145 150 155 160

Glu Ser Glu Ile Val Val Ile Ser Arg Pro Asp Ser Ser Ser Thr Lys 165 170 175

Ser Lys Glu Asp Ala Leu Lys His Lys Ser Ser Gly Lys Ile Phe Ala 180 185 190

Ser Glu His Pro Glu Phe Gln Pro Ala Thr Asn Ser Asn Glu Glu Ile 195 200 205

Gly	Gln	Lys	Asn	He	Ser	Arg	Thr	Ser	Phe	Thr	Gln	Glu	Thr	Lys	Lys
	210					215					220				
Gly	Pro	Pro	Val	Leu	Leu	G]u	Asp	Glu	Leu	Arg	Glu	Glu	Val	Thr	Val
225					230					235					240
Pro	Val	Val	Gln	Glu	Gly	Ser	Ala	Val	Lys	Lys	Val	Ala	Ser	Ala	Glu
				245					250				•	255	
Ile	Glu	Pro	Pro	Ser	Thr	Glu	Lys	Phe	Pro	Ala	Lys	He	Gln	Pro	Pro
			260					265					270		
Leu	Val	Glu	Glu	Ala	Thr	Ala	Lys	Ala	Glu	Pro	Arg	Pro	Ala	Glu	Glu
		275					280					285			
Thr	His	Val	Gln	Val	Gln	Pro	Ser	Thr	Glu	Glu	Thr	Pro	Asp	Ala	Glu
	290					295					300				
Ala	Ala	Thr	Ala	Val	Ala	Glu	Asn	Ser	Va]	Lys	Va]	Gln	Pro	Pro	Pro
305					310					315					320
Ala	Glu	Glu	Ala	Pro	Leu	Val	Glu	Phe	Pro	Ala	Glu	11e	Gln	Pro	Pro
				325					330					335	
Ser	Ala	Glu	Glu	Ser	Pro	Ser	Val	Glu	Leu	Leu	Ala	Glu	lle	Leu	Pro
			340					345					350		
Pro	Ser	Ala	Glu	Glu	Ser	Pro	Ser	Glu	Glu	Pro	Pro	Ala	Glu	He	Leu
		355					360					365			
Pro	Pro	Pro	Ala	Glu	Lys	Ser	Pro	Ser	Val	Glu	Leu	Leu	Gly	Glu	He
	370					375					380				
Arg	Ser	Pro	Ser	Ala	Gln	Lys	Ala	Pro	lle	Glu	Val	Gln	Pro	Leu	Pro
385					390					395					400
Ala	Glu	Gly	Ala	Leu	Glu	Glu	Ala	Pro	Ala	Lys	Val	Glu	Pro	Pro	Thr
				405					410					415	
Val	Glu	Glu	Thr	Leu	Ala	Glu	Val	Gln	Pro	Leu	Leu	Pro	Glu	Glu	Ala
			420					425					430		
Pro	Arg	Glu	Glu	Ala	Arg	Glu	Leu	Gln	Leu	Ser	Thr	Ala	Met	Glu	Thr
		435					440					445			
Pro	Ala	Glu	Glu	Ala	Pro	Thr	Glu	Phe	Gln	Ser	Pro	Leu	Pro	Lys	Glu
	450					455					460				
Thr	Thr	Ala	Glu	Glu	Ala	Ser	Ala	Glu	lle	Gln	Leu	Leu	Ala	Ala	Thr
465					470					475					480
Glu	Ala	Ser	Ala	Glu	Glu	Ala	Pro	Ala	Glu	Val	Gln	Pro	Pro	Pro	Ala
				485					490					495	

Glu Glu Ala Pro Ala Glu Val Gln Pro Pro Pro Ala Glu Glu Ala Pro Ala Glu Val Gln Pro Pro Pro Ala Glu Glu Ala Pro Ala Glu Val Gln Pro Pro Pro Ala Glu Glu Ala Pro Ala Glu Val Gln Pro Pro Ala Glu Glu Ala Pro Ala Glu Val Gln Pro Pro Pro Ala Glu Glu Ala Pro Ser Glu Val Gln Pro Pro Pro Ala Glu Glu Ala Pro Ala Glu Val Gln Ser Leu Pro Ala Glu Glu Thr Pro 11e Glu Glu Thr Leu Ala Ala Val His Ser Pro Pro Ala Asp Asp Val Pro Ala Glu Glu Ala Ser Val Asp Lys His Ser Pro Pro Ala Asp Leu Leu Leu Thr Glu Glu Phe Pro Ile Gly Glu Ala Ser Ala Glu Val Ser Pro Pro Pro Ser Glu Gln Thr Pro Glu Asp Glu Ala Leu Val Glu Asn Val Ser Thr Glu Phe Gln Ser Pro Gln Val Ala Gly Ile Pro Ala Val Lys Leu Gly Ser Val Val Leu Glu Gly Glu Ala Lys Phe Glu Glu Val Ser Lys Ile Asn Ser Val Leu Lys Asp Leu Ser Asn Thr Asn Asp Gly Gln Ala Pro Thr Leu Glu Ile Glu Ser Val Phe His lle Glu Leu Lys Gln Arg Pro Pro Glu Leu 

<210> 3625

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3625

Met Gly Val Val Pro Val Ser Tyr Phe Ile Arg Asn Met Glu Glu Ser Tyr Val Asn Leu Asn His His Gly Leu Gly Pro Arg Gly Thr Lys Ala lle Ala lle Ala Leu Val Ser Asn Met Ala Val Thr Lys Leu Glu Leu Glu Asp Asn Cys lle Met Glu Glu Gly Val Leu Ser Leu Val Glu Met Leu Gln Glu Asn Tyr Tyr Leu Gln Glu Met Asn Ile Ser Asn Asn His Leu Gly Leu Glu Gly Ala Arg Ile Ile Ser Asp Phe Phe Glu Arg Asn Ser Ser Ser Ile Trp Ser Leu Glu Leu Ser Gly Asn Asp Phe Lys Glu Asp Ser Ala Ala Leu Leu Cys Gln Ala Leu Ser Thr Asn Tyr Gln Ile Lys Lys Leu Asp Leu Ser His Asn Gln Phe Ser Asp Val Gly Gly Glu His Leu Gly Gln Met Leu Ala Ile Asn Val Gly Leu Thr Ser Leu Asp Leu Ser Trp Asn Asn Phe His Thr Arg Gly Ala Val Ala Leu Cys Asn Gly Leu Arg Gly Lys Ser Ser Asp Ser Thr Ala Ala Trp Ser Thr Trp Ile Ser Val Ala Met Thr Ser Ala Met Lys Gly Pro Pro Lys Ser Ala Lys Asp Trp Asn Pro Met Lys Ala Ser Glu Phe 

<210> 3626

<211> 563

<212> PRT

<213> Homo sapiens

<400> 3626

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Phe	Thr	Ser	Glu	He	Phe	Lys	Gly	Ala	Val	Phe	Gln	Ser	Leu	Asp	Gly
			20					25					30		
He	Val	Val	Ser	Ala	Asn	Cys	Lys	Leu	Arg	Lys	11e	Phe	Thr	Leu	Lys
		35					40					45			
Ser	Lys	Pro	G1n	Asp	Thr	Ala	Asp	Lys	Asp	Ala	Val	Tyr	Gly	Val	Pro
	50					55					60				
Phe	Ser	Thr	Asp	Glu	Pro	Thr	Asp	Ile	He	Pro	Arg	Ser	Cys	Gln	Leu
65					70					75					80
Met	Thr	Asp	Val	Pro	His	Val	Thr	Gln	Leu	Leu	Asn	Met	Thr	Lys	Leu
				85					90					95	
Arg	Gln	Thr	Glu	He	Lys	Phe	Gly	Gly	His	Pro	Leu	Arg	Ser	Ala	Glu
			100					105					110		
Ser	Asp	Gln	Phe	11e	Asn	Arg	Gly	Thr	Ser	lle	Thr	Arg	Asn	Ser	Lys
		115					120					125			
Asn	Gln	Asp	Val	Cys	His	lle	Ala	Phe	Gly	Ser	Lys	Val	Leu	Gly	Pro
	130					135					140				
Pro	Pro	Leu	Ser	Gly	Arg	Arg	Asn	Asn	Met	Lys	He	Ser	Ser	Glu	Thr
145					150					155					160
Val	Arg	Ser	Val	Gly	Ser	Lys	Asn	Asn	Arg	Ser	Cys	Gln	Pro	Ser	Thr
				165					170					175	
Val	Glu	Lys	Cys	Val	Asn	Gly	Thr	G] u	Met	Ser	Ala	Leu	Leu	11e	Pro
			180					185					190		
Glu	Ser	Glu	Glu	Gln	Gly	Asn	Lys	Glu	Asn	11e	His	Gln	He	Lys	Gln
		195					200					205			
Thr	Val	Pro	Пе	His	Ala	Ala	Asn	Leu	His	lle	Met	His	Pro	His	Pro
	210					215					220				
Pro	Gln	Glu	Pro	Ser	Ala	Asp	Lys	Asn	Asn	Asn	Arg	Arg	Arg	Leu	Arg
225					230					235					240
Leu	Lys	Ser	Thr	Ser	Arg	Glu	Arg	Thr	Glu	Thr	Pro	Ser	Gly	Ser	Ser
				245					250					255	
Ser	Gly	Asn	Asn	Arg	lle	Glu	Asp	Lys	Ala	Ser	Thr	He	Leu	Thr	Thr
			260					265					270		
Val	Ser	Gln	Gln	Gly	Ala	Glu	Leu	Leu	Asn	Ser	Gly	Thr	Leu	Gly	Pro
		275					280					285			

Gln	Ser 290	Pro	Asp	Gln	Ser	Asp 295	Glu	Trp	lle	Phe	Pro 300	Glu	Asn	Ala	Asp
Hic	lle	Ser	Tyr	Leu	Ala		Ser	Ara	Gln	Sor		Lau	Len	Glv	Aen
305	110	561	1 9 1	1,Cu	310	561	501	AI S	0.111	315	Leu	Leu	Lea	Oly	320
	Can	C	A an	Due		115 -	Lan	Т	1		A ]	C - 11	1	C1	
ASP	Ser	Cys	ASII		ser	nis	Leu	Lrp		Gru	мта	ser	Lys		ser
6.1			0.1	325	. 1	6.1	6.1	6	330		17 1	Б	,	335	7.1
Glu	His	Лsp		GIn	Ala	Glu	Glu		GIn	Ser	Val	Pro		Asp	He
			340					345					350		
Phe	Thr		Ser	Ser	Arg	Pro		Ser	Ala	Pro	His		Lys	Thr	GIn
		355					360					365	•		
Thr	Met	Ser	Pro	Glu	Glu		Ser	Phe	11e	Leu	Asp	Leu	Lys	Glu	Asp
	370					375					380				
Asn	Ser	Val	Thr	Ser	Arg	Asp	Thr	Gln	Ser	Glu	Asp	Asp	Phe	Tyr	Gly
385					390					395					400
Gly	Asp	Ser	Ser	Glu	Glu	Glu	Tyr	Asp	Trp	Arg	Asn	Tyr	Gln	Pro	Ser
				405					410					415	
Gln	Met	Ser	Glu	Ser	Glu	Leu	Gln	Met	Leu	Ala	Ser	Leu	Arg	Trp	Gln
			420					425					430		
Gln	Asn	Glu	Glu	Leu	Glu	Asp	Ala	Gly	Thr	Ser	His	Gly	Leu	Ser	Ala
		435					440					445			
Ser	Gln	Val	Asp	Asn	Cys	Asn	Val	Ser	Пе	Ser	Thr	Ser	Ser	Asp	Asp
	450					455					460				
Thr	Thr	Thr	Trp	Asn	Ser	Cys	Leu	Pro	Pro	Pro	Val	Asn	Gln	Gly	Arg
465					470					475					480
His	Tyr	Gln	Lys	Glu	Met	Asn	Pro	Pro	Ser	Pro	Ser	Asn	Pro	Arg	Asp
				485					490					495	
Trp	Leu	Asn	Met	Leu	Ser	Pro	Pro	He	Va]	P.ro	Pro	Ser	Gln	Gln	Pro
			500					505					510		
Ala	Glu	Gln	Arg	Pro	Asp	Ser	Cys	Glu	Ser	Leu	Ser	Va]	G1n	Gly	Glu
		515					520					525			
Glu	Asn		Ser	Val	Glu	Glu		Glu	Glu	Val	Leu		Leu	Leu	Tyr
	11111						•								-
	530					535					540				
Asp	530	Cvs	Leu	Asn	Cvs	535 Tyr	Phe	Asp	Pro	G]n		Glv	Lvs	Tvr	Tvr
Asp 545	530 Pro	Cys	Leu	Asn			Phe	Asp	Pro	G1n 555		Gly	Lys	Туг	
545	530 Pro		Leu	Asn	Cys 550		Phe	Asp	Pro			Gly	Lys	Туг	Tyr 560

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<211> 512
<212> PRT
<213> Homo sapiens
<400> 3627
Met Asn Val Arg Ile Asp Pro Ser Ser Leu Ser Phe Asn Met Trp Lys
                                     10
Glu Ile Pro Ile Pro Phe Tyr Leu Ser Val Tyr Phe Phe Asp Val Met
                                 25
Asn Pro Ser Glu Ile Leu Lys Gly Glu Lys Pro Gln Val Arg Glu Arg
         35
                             40
                                                  45
Gly Pro Tyr Val Tyr Arg Glu Phe Arg His Lys Ser Asn 11e Thr Phe
                         55
Asn Asn Asn Asp Thr Val Ser Phe Leu Glu Tyr Arg Thr Phe Gln Phe
                     70
                                          75
65
                                                              80
Gln Pro Ser Lys Ser His Gly Ser Glu Ser Asp Tyr 11e Val Met Pro
                                     90
                 85
Asn Ile Leu Val Leu Gly Ala Ala Val Met Met Glu Asn Lys Pro Met
            100
                                 105
                                                     110
Thr Leu Lys Leu lle Met Thr Leu Ala Phe Thr Thr Leu Gly Glu Arg
        115
                                                 125
                            120
Ala Phe Met Asn Arg Thr Val Gly Glu Ile Met Trp Gly Tyr Lys Asp
                        135
Pro Leu Val Asn Leu Ile Asn Lys Tyr Phe Pro Gly Met Phe Pro Phe
145
                    150
                                         155
                                                             160
Lys Asp Lys Phe Gly Leu Phe Ala Glu Leu Asn Asn Ser Asp Ser Gly
                                     170
                165
Leu Phe Thr Val Phe Thr Gly Val Gln Asn Ile Ser Arg Ile His Leu
            180
                                 185
                                                     190
Val Asp Lys Trp Asn Gly Leu Ser Lys Val Asp Phe Trp His Ser Asp
        195
                            200
                                                 205
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<210> 3627

Gln	Cys	Asn	Met	He	Asn	Gly	Thr	Ser	G1 y	Gln	Met	Trp	Pro	Pro	Phe
	210					215					220				
Met	Thr	Pro	Glu	Ser	Ser	Leu	Glu	Phe	Tyr	Ser	Pro	Glu	Ala	Cys	Arg
225					230					235					240
Ser	Met	Lys	Leu	Met	Tyr	Lys	Glu	Ser	Gly	Val	Phe	Glu	Gly	He	Pro
				245					250					255	
Thr	Tyr	Arg	Phe	Val	Ala	Pro	Lys	Thr	Leu	Phe	Ala	Asn	Gly	Ser	He
			260					265					270		
Tyr	Pro	Pro	Asn	Glu	Gly	Phe	Cys	Pro	Cys	Leu	Glu	Ser	Gly	He	Gln
		275					280					285			
Asn	Val	Ser	Thr	Cys	Arg	Phe	Ser	Ala	Pro	Leu	Phe	Leu	Ser	His	Pro
	290					295					300				
His	Phe	Leu	Asn	Ala	Asp	Pro	Val	Leu	Ala	Glu	Ala	Val	Thr	Gly	Leu
305					310					315					320
His	Pro	Asn	Gln	Glu	Ala	His	Ser	Leu	Phe	Leu	Asp	He	His	Pro	Val
				325					330					335	
Thr	Gly	Ile	Pro	Met	Asn	Cys	Ser	Val	Lys	Leu	Gln	Leu	Ser	Leu	Tyr
			340					345					350		
Met	Lys	Ser	Val	Ala	Gly	Ile	Gly	Gln	Thr	Gly	Lys	lle	Glu	Pro	Val
		355					360					365			
Val	Leu	Pro	Leu	Leu	Trp	Phe	Ala	Glu	Ser	Gly	Ala	Met	Glu	G1 y	Glu
	370					375					380				
Thr	Leu	His	Thr	Phe	Tyr	Thr	Gln	Leu	Val	Leu	Met	Pro	Lys	Val	Met
385					390					395					400
His	Tyr	Ala	Gln	Tyr	Val	Leu	Leu	Ala	Leu	Gly	Cys	Val	Leu	Leu	Leu
				405					410					415	
Val	Pro	Val	He	Cys	Gln	lle	Arg	Ser	Gln	Val	Gly	Ala	Gly	Gln	Arg
			420					425					430		
Ala	Ala	Arg	Ala	Asp	Ser	His	Ser	Leu	Ala	Cys	Trp	Gly	Lys	Gly	Ala
		435					440					445			
Ser	Asp	Arg	Thr	Leu	Trp	Pro	Thr	Ala	Ala	Trp	Ser	Pro	Pro	Pro	Ala
	450					455					460				
Ala	Val	Leu	Arg	Leu	Cys	Arg	Ser	Gl y	Ser	Gly	His	Cys	Trp	Gly	Leu
465					470					475					480
Arg	Ser	Thr	Leu	Ala	Ser	Phe	Ala	Cys	Arg	Val	Ala	Thr	Thr	Leu	Pro
				485					490					495	

Val Leu Glu Gly Leu Gly Pro Ser Leu Gly Gly Gly Thr Gly Gly Leu
500 505 510

<210> 3628

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3628

Met Glu Asn Ser Gly Lys Ala Asn Lys Lys Asp Thr His Asp Gly Pro

1 5 10 15

Pro Lys Glu 11e Lys Leu Pro Thr Ser Glu Ala Leu Leu Asp Tyr Gln
20 25 30

Cys Gln 11e Lys Glu Asp Ala Val Glu Gln Phe Met Phe Gln 11e Lys 35 40 45

Thr Leu Arg Lys Lys Asn Gln Lys Tyr His Glu Arg Asn Ser Arg Leu 50 55 60

Lys Glu Glu Gln Ile Trp His Ile Arg His Leu Leu Lys Glu Leu Ser
65 70 75 80

Glu Glu Lys Ala Glu Gly Leu Pro Val Val Thr Arg Glu Asp Val Glu

85
90
95

Glu Ala Met Lys Glu Lys Trp Lys Phe Glu Arg Asp Gln Glu Lys Asn 100 105 110

Leu Arg Asp Met Arg Met Gln 11e Ser Asn Ala Glu Lys Leu Phe Leu 115 120 125

Glu Lys Leu Ser Glu Lys Glu Tyr Trp Glu Glu Tyr Lys Asn Val Gly
130 135 140

Ser Glu Arg His Ala Lys Leu Ile Thr Ser Leu Gln Asn Asp Ile Asn 145 150 155 160

Thr Val Lys Glu Asn Ala Glu Lys Met Ser Glu His Tyr Lys 11e Thr
165 170 175

Leu Glu Asp Thr Arg Lys Lys Ile Ile Lys Glu Thr Leu Leu Gln Leu 180 185 190

Asp Gln Lys Lys Glu Trp Ala Thr Gln Asn Ala Val Lys Leu IIe Asp 195 200 205

Lys	Gly	Ser	Tyr	Leu	Glu	lle	Trp	Glu	Asn	Asp	Trp	Leu	Lys	Lys	Glu
	210					215					220				
Val	Ala	lle	His	Arg	Lys	Glu	Val	Glu	Glu	Leu	Lys	Asn	Ala	He	His
225					230					235					240
Glu	Leu	Glu	Ala	Glu	Asn	Leu	Val	Leu	He	Asp	Gln	Leu	Ser	Asn	Cys
				245					250					255	
Arg	Leu	Val	Asp	Leu	Lys	lle	Pro	Arg	Tyr	Pro	Val	Leu	His	Ser	Cys
			260					265					270		
Pro	Thr	Ser	Asn	Pro	Arg	His	Leu	Leu	Leu	Leu	Pro	Leu	Glu	Ser	Cys
		275					280					285			
Leu	He	Ser	Ala	Arg	Arg	Cys	Trp	Arg	Leu	Tyr	Leu	Thr	Gln	Ala	Ala
	290					295					300				
Gly	Leu	Glu	Val	Pro	Pro	Glu	Glu	Met	Ser	Leu	Glu	Leu	Pro	Glu	Thr
305					310					315					320
His	lle	Glu	Glu	Lys	Ser	Glu	Leu	G1n	Pro	Thr	Glu	Val	Glu	Ser	Arg
				325					330					335	
Asp	Leu	Met	Ser	Ser	Ser	Asp	Glu	Ser	Thr	Ile	Leu	His	Leu	Ser	His
			340					345					350		
Glu	Asn	Ser	He	Glu	Asp	Leu	Gln	Tyr	Val	Lys	lle	Asp	Lys	Glu	Glu
		355					360		,			365			
Asn	Ser	Gly	Thr	Glu	Phe	G1 y	Asp	Thr	Asp	Met	Lys	Tyr	Leu	Leu	Tyr
	370					375					380				
Glu	Asp	Glu	Lys	Asp	Phe	Lys	Asp	Tyr	Val	Asn	Leu	Gly	Pro	Leu	Gly
385					390					395					400
Val	Lys	Leu	Met	Ser	Val	Glu	Ser	Lys	Lys	Met	Pro	lle	His	Phe	Gln
				405					410					415	
Glu	Lys	Ġlu	lle	Pro	Val	Lys	Leu	Tyr	Lys	Asp	Val	Arg	Ser	Pro	Glu
			420					425					430		
Ser	His	He	Thr	Tyr	Lys	Met	Met	Lys	Ser	Phe	Leu				
		435					440								

<210> 3629

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3629 Met Leu Ser Asn Leu His Glu Leu Leu Pro Asn His Leu Met Glu Thr Leu Tyr Ser Arg Lys Ser Glu Glu Asp Lys Lys Cys Glu Asn Pro Glu Leu Ser Gly Leu Glu Arg Ile Leu Ala Arg His Gln Leu Pro Lys Glu Ile Asn Leu Thr Pro Lys Pro Asn Arg Met Pro Pro Trp Lys Arg Lys Ile Ile Asn Asn Val Thr Asp Gly Trp Lys Lys Cys His Leu Leu Lys Arg Asn Thr Lys Glu Pro Pro Met Ser Thr Ile Val Val Ser Asn Thr 11e Pro Ser Ile Leu Leu Pro Cys Tyr Met Ala Glu Lys Glu His Ala Thr His <210> 3630 <211> 116 <212> PRT <213> Homo sapiens <400> 3630 Met Cys Lys His Gly Pro Phe Thr Phe Leu Tyr Leu Pro Cys Arg Ile Phe Thr Lys Ile Leu Gly Gly Gly Ala Val Asn Ile Ala His Tyr Ala Arg Gln Glu Val lle Asn Val Ser Pro Gly Tyr Gln Leu Val Arg Asn 

Arg Glu Gln 11e Ser Val Thr Leu Gly Asp Glu Met Phe Asp Arg Lys

Lys Arg Trp Glu Ser Glu Ile Pro Asp Lys Gly Arg Phe Ser Arg Thr

Asn lle lle Ser Asp Leu Glu Glu Gln lle Ser Glu Leu Thr Ala lle lle Glu Gln Met Asn Arg Asp His Gln Ser Ala Gln Lys Leu Gly Ala Gln Arg Gly Pro <210> 3631 <211> 356 <212> PRT <213> Homo sapiens <400> 3631 Met Asp Thr Gln Gly Pro Val Ser Gln Pro Phe Gln Gln Pro Glu Lys Pro Gly Arg Val Arg Arg Arg Lys Thr Arg Arg Glu Arg Asn Lys Ala Leu Val Gly Ser Arg Arg Pro Leu Ala His His Asp Pro Pro Val Ala Ile Arg Asp Pro Pro Val Val Pro Thr Ala Ser Lys Leu Val Val Ile 

Thr Gln Gly Arg Leu Ser Arg Glu His Arg Gly Leu Phe Asn His Glu Val Lys Ser Leu Asp Val Ala Arg Leu Leu Ser Ser Gly Thr Leu Val Pro Gly Ser Pro Thr Leu Pro Ala Lys Pro Ser Pro Ser Pro Gly Arg Ala Gln Glu Pro Ala Pro Arg Ser Arg Asp Lys Glu Asn Gln Val Pro Gly Gly Ser Gly Pro Gly Pro Pro Ser Ser Pro Glu Leu Ser Gly Val Gly Gln Leu Leu Ala Glu Leu Gln Cys Gln Leu Ser Leu Pro Gln Ala Phe Pro Arg Arg Asn Leu Ile Gln Asp Ala Arg Asp Ala lle Val His 

Thr Leu Gln Ala Cys His Gly Cys Val Pro Asp Leu Ala Leu Val Leu Arg Gly Cys Gln Pro Pro Leu Pro Gly Ala Lys Pro Gly Val Ser Glu Arg Lys Met Thr Pro Phe Trp Ile Asn Ser Pro Asp Gln Val Pro Glu Gln Glu Arg Gln Arg Lys Gln Gln Gly Thr Lys Glu Phe Thr Phe Pro Met Pro Tyr Thr Ser Ser Met Pro Thr Ala His Arg Gly Ser Leu Ala Pro Pro Arg Gly Pro Trp Pro Pro Tyr Phe Pro Ser Leu Ser Ser Pro Ser Gly Thr Ala Trp Gly Pro Pro Thr Ala Phe Asp Leu Leu Lys Ser lle Trp Leu Val Ala Thr Pro Pro Pro Pro Arg Pro Trp Gly Val Gly Leu Pro Gln Pro Leu Pro Gln Pro Ser Ser Pro Leu Leu Pro Arg Thr Ser Val Leu Asp Trp Ser Pro Ser Pro Pro Ser Pro Leu Pro Ser Leu Ser Trp Val Val Ala Gln Ser Ser Pro Glu Ala Trp Ser Phe Pro Pro Met Arg Leu Tyr 

<210> 3632

<211> 571

<212> PRT

<213> Homo sapiens

<400> 3632

Met Val Gly Glu Gly Pro Tyr Leu lle Ser Asp Leu Asp Gln Arg Gly

1 5 10 15

Arg Arg Arg Ser Phe Ala Glu Arg Tyr Asp Pro Ser Leu Lys Thr Met

20 25 30

He	Pro	Val	Arg	Pro	Cys	Ala	Arg	Leu	Ala	Pro	Asn	Pro	Val	Asp	Asp
		35					40					45			
Ala	Gly	Leu	Leu	Ser	Phe	Ala	Thr	Phe	Ser	Trp	Leu	Thr	Pro	Val	Met
	50					55					60				
Val	Lys	Gly	Tyr	Arg	Gln	Arg	Leu	Thr	Val	Asp	Thr	Leu	Pro	Pro	Leu
65					70					75					80
Ser	Thr	Tyr	Asp	Ser	Ser	Asp	Thr	Asn	Ala	Lys	Arg	Phe	Λrg	Val	Leu
				85					90					95	
Trp	Asp	Glu	Glu	Val	Ala	Arg	Val	G1 y	Pro	Glu	Lys	Ala	Ser	Leu	Ser
			100					105					110		
His	Val	Val	Trp	Lys	Phe	Gln	Arg	Thr	Arg	Val	Leu	Met	Asp	He	Val
		115					120					125			
Ala	Asn	He	Leu	Cys	11e	11e	Met	Ala	Ala	He	G1 y	Pro	Thr	Val	Leu
	130					135					140				
Πle	His	Gln	He	Leu	Gln	Gln	Thr	Glu	Arg	Thŕ	Ser	Gly	Lys	Val	Trp
145					150					155					160
Val	Gly	He	Gly	Leu	Cys	lle	Ala	Leu	Phe	Ala	Thr	Glu	Phe	Thr	Lys
				165					170					175	
Val	Phe	Phe	Trp	Ala	Leu	Ala	Trp	Ala	He	Asn	Tyr	Arg	Thr	Ala	He
			180					185					190		
Arg	Leu	Lys	Val	Ala	Leu	Ser	Thr	Leu	Val	Phe	Glu	Asn	Leu	Val	Ser
		195					200					205			
Phe	Lys	Thr	Leu	Thr	His	He	Ser	Val	Gly	Glu	Val	Leu	Asn	He	Leu
	210					215					220				
Ser	Ser	Asp	Ser	Tyr	Ser	Leu	Phe	Glu	Ala	Ala	Leu	Phe	Cys	Pro	Leu
225					230					235					240
Pro	Ala	Thr	He	Pro	Ile	Leu	Met	Val	Phe	Cys	Val	Ala	Tyr	Ala	Phe
				245					250					255	
Phe	He	Leu	Gly	Pro	Thr	Ala	Leu	lle	Gly	He	Ser	Val	Tyr	Val	He
			260					265					270		
Phe	He	Pro	Val	Gln	Met	Phe	Met	Ala	Lys	Leu	Asn	Ser	Ala	Phe	Arg
		275					280					285			
Arg	Ser	Ala	Пе	Leu	Val	Thr	Лsp	Lys	Arg	Val	Gln	Thr	Met	Asn	G] u
	290					295					300				
Phe	Leu	Thr	Cys	He	Arg	Leu	He	Lys	Met	Tyr	Ala	Trp	Glu	Lys	Ser

305					310					315					320
Phe	Thr	Asn	Thr	lle	Gln	Asp	lle	Arg	Arg	Arg	Glu	Arg	Lys	Leu	Leu
				325					330					335	
Glu	Lys	Ala	Gly	Phe	Val	Gln	Ser	Gly	Λsn	Ser	Ala	Leu	Ala	Pro	He
			340					345					350		
Val	Ser	Thr	He	Ala	lle	Val	Leu	Thr	Leu	Ser	Cys	His	He	Leu	Leu
		355					360					365			
Arg	Arg	Lys	Leu	Thr	Ala	Pro	Val	Ala	Phe	Ser	Val	Ile	Ala	Met	Phe
	370					375					380				
Asn	Val	Met	Lys	Phe	Ser	He	Ala	He	Leu	Pro	Phe	Ser	Ile	Lys	Ala
385					390					395					400
Met	Ala	Glu	Ala	Asn	Val	Ser	Leu	Arg	Arg	Met	Lys	Lys	He	Leu	He
				405					410					415	
Asp	Lys	Ser	Pro	Pro	Ser	Tyr	11e	Thr	Gln	Pro	Glu	Asp	Pro	Asp	Thr
			420					425					430		
Val	Leu	Leu	Leu	Ala	Asn	Ala	Thr	Leu	Thr	Trp	Glu	His	Glu	Ala	Ser
		435					440					445			
Arg	Lys	Ser	Thr	Pro	Lys	Lys	Leu	Gln	Asn	Gln	Lys	Arg	His	Leu	Cys
	450					455					460				
Lys	Lys	Gln	Arg	Ser	Glu	Ala	Tyr	Ser	Glu	Arg	Ser	Pro	Pro	Ala	Lys
465					470					475					480
Gly	Ala	Thr	Gly	Pro	Glu	Glu	Gln	Ser	Asp	Ser	Leu	Lys	Ser	Val	Leu
				485					490					495	
His	Ser	He	Ser	Phe	Val	Val	Arg	Lys	Gly	Lys	He	Leu	Gly	Пе	Cys
			500					505					510		
Gly	Asn	Val	Gly	Ser	Gly	Lys	Ser	Ser	Leu	Leu	Ala	Ala	Leu	Leu	Gly
		515					520					525			
Gln	Met	Gln	Leu	Gln	Lys	Gly	Val	Val	Ala	Val	Asn	Gly	Thr	Leu	Ala
	530					535					540				
Tyr	Val	Ser	Gln	Gln	Ala	Trp	He	Phe	His	Gly	Asn	Val	Arg	Glu	Asn
545					550					555					560
lle	Leu	Phe	Gly	Glu	Lys	Tyr	Asp	His	Gln	Arg					
				565					570						

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<211> 417
<212> PRT
<213> Homo sapiens
<400> 3633
Met Pro Gln Pro Ser Val Ser Gly Met Asp Pro Pro Phe Gly Asp Ala
                                      10
Phe Arg Ser His Thr Phe Ser Glu Gln Thr Leu Met Ser Thr Asp Leu
             20
                                  25
                                                      30
Leu Ala Asn Ser Ser Asp Pro Asp Phe Met Tyr Glu Leu Asp Arg Glu
Met Asn Tyr Gln Gln Asn Pro Arg Asp Asn Phe Leu Ser Leu Glu Asp
                         55
                                              60
Cys Lys Asp 11e Glu Asn Leu Glu Ser Phe Thr Asp Val Leu Asp Asn
 65
                     70
                                          75
                                                              80
Glu Gly Ala Leu Thr Ser Asn Trp Glu Gln Trp Asp Thr Tyr Cys Glu
                                      90
                 85
Asp Leu Thr Lys Tyr Thr Lys Leu Thr Ser Cys Asp Ile Trp Gly Thr
            100
                                 105
                                                     110
Lys Glu Val Asp Tyr Leu Gly Leu Asp Asp Phe Ser Ser Pro Tyr Gln
                             120
                                                 125
Asp Glu Glu Val Ile Ser Lys Thr Pro Thr Leu Ala Gln Leu Asn Ser
                        135
Glu Asp Ser Gln Ser Val Ser Asp Ser Leu Tyr Tyr Pro Asp Ser Leu
145
                    150
                                         155
                                                              160
Phe Ser Val Lys Gln Asn Pro Leu Pro Ser Ser Phe Pro Gly Lys Lys
                165
                                     170
lle Thr Ser Arg Ala Ala Ala Pro Val Cys Ser Ser Lys Thr Leu Gln
            180
                                 185
                                                     190
Ala Glu Val Pro Leu Ser Asp Cys Val Gln Lys Ala Ser Lys Pro Thr
        195
                            200
                                                 205
Ser Ser Thr Gln Ile Met Val Lys Thr Asn Met Tyr His Asn Glu Lys
                        215
                                             220
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Val Asn Phe His Val Glu Cys Lys Asp Tyr Val Lys Lys Ala Lys Val

Lys Ile Asn Pro Val Gln Gln Ser Arg Pro Leu Leu Ser Gln 11e His

Thr Asp Ala Ala Lys Glu Asn Thr Cys Tyr Cys Gly Ala Val Ala Lys Arg Gln Glu Lys Lys Gly Met Glu Pro Leu Gln Gly His Ala Thr Pro Ala Leu Pro Phe Lys Glu Thr Gln Glu Leu Leu Leu Ser Pro Leu Pro Gln Glu Gly Pro Gly Ser Leu Ala Ala Gly Glu Ser Ser Ser Leu Ser Ala Ser Thr Ser Val Ser Asp Ser Ser Gln Lys Lys Glu Glu His Asn Tyr Ser Leu Phe Val Ser Asp Asn Leu Gly Glu Gln Pro Thr Lys Cys Ser Pro Glu Glu Asp Glu Glu Asp Glu Glu Asp Val Asp Asp Glu Asp His Asp Glu Gly Phe Gly Ser Glu His Glu Leu Ser Glu Asn Glu Glu Glu Glu Glu Glu Glu Glu Asp Tyr Glu Asp Asp Lys Asp Asp Asp Ile Ser Asp Thr Phe Ser Glu Pro Gly 11e 11e Met Leu Ala Ser Leu Pro Asp

<210> 3634

<211> 157

<212> PRT

<213> Homo sapiens

<400> 3634

Met Trp Arg Gln Glu Glu Glu Leu Arg Asp Gln Glu Lys Leu Arg Lys

1 5 10 15

His Glu Glu Lys Thr Trp Arg Gln Glu Gln Arg Leu Arg Asp Gln Glu

20 25 30

Lys Glu Leu Arg Lys Gln Glu Lys Gln Met Leu Lys Gln Lys Glu Gln

35 40 45 Met Ala Glu Gln Glu Gln Met Gln Lys Gln Glu Glu Gln Val Arg 50 55 60 Lys Gln Glu Glu Gln Val Arg Lys Gln Glu Glu Gln Met Trp Lys Gln 70 75 80 65 Glu Glu Gln Met Arg Lys Gln Glu Glu Gln Met Arg Lys Gln Glu Lys 85 90 Gln Met Gly Glu Gln Glu Gln Met Arg Lys Arg Glu Glu Gln Met 100 110 Arg Lys Arg Glu Glu Gln Ile Thr Gln Leu Pro Pro Gly Met Lys Asn 120 Thr Gln Glu His Pro Gly Leu Gly Ser Thr Ser Cys Ile Leu Phe Phe 135 140 Tyr Arg Gly Asp Lys Lys Lys Ile Lys Ile Tle Asn Ile 145 150 155

<210> 3635

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3635

Met Thr Pro Pro Met Arg Thr Gln Gly Thr Glu Thr Lys Ser Lys Lys

1 5 10 15

Ala Leu Arg Val Glu Gly Ser Ser Gly Ala Lys Gly Arg Val Arg Ala

20 25 30

Thr Pro Ala Arg Arg His Phe Gln Thr Asp Leu Pro Ala Pro Arg Asn 35 40 45

Arg Ser Arg Pro Pro Ser Ser Cys IIe Leu Asp Pro Thr Gln Thr Arg
50 55 60

Ser Arg Thr His Leu Pro Arg Ala Pro Gln Thr Leu Thr Ala Ser Gly
65 70 75 80

Ala Ala Asp Thr Asp Gln Val Pro His Ser Leu Gly Leu Gln Gly Arg 85 90 95

Ser Arg Arg Pro Leu Thr Leu Arg Glu Ala Leu Thr Asp Gly Ala Leu

Pro Arg Leu Ala Ser Thr Pro Arg Gln Arg Leu Pro Ile Ala Val Arg Leu Pro Gly 11e Gly Pro Ala Ala Thr Pro Ala Cys Arg Pro Arg Gly Thr Val Ala Leu Pro Val Pro Glu Gly Thr Arg Asp Thr Cys Ser Thr Ala Ile Pro Tyr Thr Cys Glu Ala Pro <210> 3636 <211> 132 <212> PRT <213> Homo sapiens <400> 3636 Met 11e His Leu Lys Gly Ser Ser Ser Gly Glu Ser Gln Tyr Leu Pro Gln His Cys Arg Met Gly Arg Ser Leu Pro Pro Thr His Ser Thr His Leu Thr Pro Pro Phe Gln Gly Lys Asp Leu Arg Ala Ala Gly Glu Ser Glu lle Gly Arg His Gly Ala Asn Trp Ala Thr Ala Arg Asp Leu Glu Pro Thr Pro Leu Asn Ser Glu His Arg Lys Arg Arg Gln Ala Arg Arg Gly Gln Glu Ala Asp Thr Arg Ala Gly Gln Arg Asn Gly Glu His Thr His Ala Leu Arg Ser Lys Ala Glu Arg Cys Glu Phe Thr Lys Thr Gly Val His Arg Pro Ile Thr Asp Thr Asp Pro Gly Trp Pro Gly Ala Pro His Thr Gly

<210> 3637 <211> 136 <212> PRT <213> Homo sapiens <400> 3637 Met Glu Cys Asn Gly Leu Ile Leu Ala His Cys Asn Leu Cys Leu Pro 5 10 Gly Ser Gly Asp Ser Pro Ala Ser Ala Ser Gln Val Ala Gly Thr Thr 20 25 Gly Thr His His Cys Thr Gln Leu lle Phe Val Phe Leu Val Glu Thr 40 45 Glu Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser 50 55 60 Asp Leu Pro Ala Ser Ala Ser Gln Asn Ala Gly lle Thr Gly Val Ser 70 75 His Trp Ala Trp Thr Leu Phe Phe Tyr Phe Leu Asn Lys Leu Thr Phe 90 Ala Leu Gln Thr His Pro Glu Phe Phe Phe Phe Phe Phe Phe Glu Thr 100 105 110 Gly Ser His Cys Val Ala Gln Val Glu Trp His Tyr Leu Gly Ser Leu 120 125 Gln Pro Pro Pro Pro Arg Phe Lys 130 135 <210> 3638 <211> 114 <212> PRT <213> Homo sapiens

Met Met Gly Ile Phe Asn Gly Lys Ala Val Thr Gln Pro Lys Arg Gly

1 5 10 15

Thr Ile Ser Glu Ala Ser Arg Gln Lys Ser Leu Asp Arg Arg Ser Asn

<400> 3638

Glu Pro Gly Arg Glu His Arg Ala Gly Ala His Val Glu Asn Leu Leu Arg Asn Leu Leu Glu Ala Glu Lys Thr Leu Gly Lys Ser Ser Ser His Gly Ser Gly Ile Pro Trp Ile Val Arg Pro Ala Phe Val Phe Ser Leu Ser Leu Phe Leu Ala Val Pro Pro Gly Ser His Ser Cys Ser Arg Asn Gln Ala Arg Ser Gly Cys Ile Phe Trp Arg Leu Asn Asn Lys Lys Gln Thr Asn <210> 3639 <211> 164 <212> PRT <213> Homo sapiens <400> 3639 Met Phe Ile Trp Asn Leu Ile Ser Thr Trp Gly Leu Val Ile Thr Trp Val Leu Gly 11e His Leu Gly Leu Glu Tyr Pro Pro Gly Ata Leu Ser Phe Thr Arg Asp Ser Cys Leu Pro Trp Thr Trp Val Tyr Ile Cys Cys Leu Met Tyr Thr Leu Arg Val Met Ser Thr Trp Gly Gln Met Ser Ser Trp Gly Leu Ser Val His Leu Val Ser Asp Val Cys Leu Gly Thr Cys Val His Leu Arg Pro Asp 11e His Leu Gly Thr Gly Arg Pro Arg Gly Ala Asp Val Gln Leu Asp Thr Gly Tyr Pro Pro Gly Ala Trp Gly Ser 

lle Gln Lys Leu Met Ser Asn Trp Gly Leu Met Ser Thr Cys Gly Leu

Gly Ile His Val Arg Leu Asp Val His Pro Arg Pro Asp Val His Leu Met Leu Asp Val His Leu Thr Pro Gly Cys Leu Leu Glu Thr Ser Cys Pro Thr Arg 11e <210> 3640 <211> 459 <212> PRT <213> Homo sapiens <400> 3640 Met Ala Gly Thr Arg Trp Val Leu Gly Ala Leu Leu Arg Gly Cys Gly Cys Asn Cys Ser Ser Cys Arg Arg Thr Gly Ala Ala Cys Leu Pro Phe Tyr Ser Ala Ala Ala Ala Ala Ser Gln Thr Arg Gly Leu Gln Thr Gly Pro Val Pro Pro Gly Arg Leu Ala Gly Pro Pro Ala Val Ala Thr Ser Ala Ala Ala Ala Ala Ala Ser Tyr Pro Ala Leu Arg Ala Ser Leu Leu Pro Gln Ser Leu Ala Ala Ala Ala Ala Val Pro Thr Arg Ser Tyr Ser Gln Glu Ser Lys Thr Thr Tyr Leu Glu Asp Leu Pro Pro Pro Pro Glu Tyr Glu Leu Ala Pro Ser Lys Leu Glu Glu Glu Val Asp Asp Val Phe Leu Ile Arg Ala Gln Gly Leu Pro Trp Ser Cys Thr Met Glu Asp Val Leu Asn Phe Phe Ser Asp Cys Arg lle Arg Asn Gly Glu Asn Gly 

lle His Phe Leu Leu Asn Arg Asp Gly Lys Arg Arg Gly Asp Ala Leu

					165					170					175	
	lle	Glu	Met	Glu	Ser	Glu	Gln	Asp	Val	Gln	Lys	Ala	Leu	Glu	Lys	His
				180					185					190		
	Arg	Met	Tyr	Met	Gly	Gln	Arg	Tyr	Val	Glu	Val	Tyr	Glu	He	Asn	Asn
			195					200					205			
	Glu	Asp	Val	Asp	Ala	Leu	Met	Lys	Ser	Leu	Gln	Val	Lys	Ser	Ser	Pro
		210					215					220				
	Val	Val	Asn	Asp	Gly	Val	Val	Arg	Leu	Arg	G1 y	Leu	Pro	Tyr	Ser	Cys
	225					230					235					240
	Asn	Glu	Lys	Asp	Ile	Val	Asp	Phe	Phe	Ala	Gly	Leu	Asn	He	Val	Asp
					245					250					255	
	He	Thr	Phe	Val	Met	Asp	Tyr	Arg	Gly	Arg	Arg	Lys	Thr	Gly	Glu	Ala
				260					265					270		
	Tyr	Val	Gln	Phe	Glu	Glu	Pro	Glu	Met	Ala	Asn	Gln	Ala	Leu	Leu	Lys
			275					280					285			
	His	Arg	Glu	Glu	Ile	Gly	Asn	Arg	Tyr	He	Glu	He	Phe	Pro	Ser	Arg
		290					295					300				
	Arg	Asn	Glu	Val	Arg	Thr	His	Val	Gly	Ser	Tyr	Lys	Gly	Lys	Lys	Ile
	305					310					315					320
	Ala	Ser	Phe	Pro	Thr	Ala	Lys	Tyr	lle	Thr	Glu	Pro	Glu	Met	Val	Phe
					325					330					335	
	Glu	Glu	His	Glu	Val	Asn	Glu	Asp	Пе	Gln	Pro	Met	Thr	Ala	Phe	Glu
				340					345					350		
	Ser	Glu	Lys	Glu	lle	Glu	Leu	Pro	Lys	Glu	Val	Pro	Glu	Lys	Leu	Pro
			355					360					365			
	Glu	Ala	Ala	Asp	Phe	Gly	Thr	Thr	Ser	Ser	Leu	His	Phe	Val	His	Met
		370					375					380				
		Gly	Leu	Pro	Phe	Gln	Ala	Asn	Ala	Gln	Asp	He	He	Asn	Phe	Phe
	385					390					395					400
	Ala	Pro	Leu	Lys		Val	Arg	He	Thr	Met	G] u	Tyr	Ser	Ser	Ser	Gly
					405					410					415	
	Lys,	Ala	Thr		Glu	Ala	Asp	Val		Phe	G] u	Thr	His		Asp	Ala
				420					425					430		
•	Val	Ala		Met	Leu	Lys	Asp		Ser	His	Val	His		Arg	Tyr	He
			435			_	_	440					445			
	Glu	Leu	Phe	Leu	Asn	Ser	Cys	Pro	Lys	Gly	Lys					

450 455

<210> 3641 <211> 572 <212> PRT <213> Homo sapiens

<400> 3641

Met Pro Val Tyr Cys Lys Tyr Gln Phe His Lys Thr Pro Val His Lys

1 5 10 15

Thr Lys Gly Glu Pro His Gly Thr His Val Tyr Phe Gln Asp Ile Asn 20 25 30

Val IIe Phe Leu Gly Ala Leu His Pro Ser Asp Leu Arg Glu Tyr Leu 35 40 . 45

Glu Gly Pro Pro Met Val Val Glu Val His Asp Arg Asp Arg Lys Ser 50 55 60

Glu Glu Cys Ser Gln Lys Pro Val Leu Phe Gly Glu Asp Pro Leu Asp
65 70 75 80

Ser Tyr Leu Asn Phe Gln Ala Leu 11e Ser Pro Arg Glu Thr Glu Asn 85 90 95

Asn Pro Phe Glu Ser Gln Asn Lys Met Trp Tyr Pro Tyr Gly Ile Ala 100 105 110

Gln Val Ser Phe Ala Asp Leu Leu Cly His Lys Tyr Leu Asn Leu 115 120 125

Ala Val Pro 11e His Ser Cys Glu Val Gln Pro Thr His Cys Gly Gln 130  $$135\$  140

Asp Ser Arg Arg Lys Val Val Gly Leu Gly Val Pro Arg Asp Gly
145 150 155 160

His Gln His Gly Pro Met Pro Arg Gly Asn Tyr Leu Glu Ala Asp Ser 165 170 175

Gln Leu Lys Leu Arg Val Asp Ile Ala Val Pro Leu Arg Ala Gly Ala 180 185 190

Arg Ala Ala Asp Pro Asp Leu Gly Gly Ser Gln Phe Gly Arg 11e 11e 195 200 205

Phe Val Phe Asp Phe Lys Lys Val Ser Leu Leu His Ser Leu Leu Gln

	210					215					220				
Asp	He	Thr	Met	Ile	Asn	Ala	Lys	Ala	Leu	G1 y	Leu	Asp	Ser	Tyr	Pro
225					230					235					240
Val	Arg	Thr	Leu	Gln	Gln	He	Leu	Ser	Ala	Phe	Lys	Val	Arg	Val	Arg
				245					250					255	
Val	Gln	Glu	Gln	Gln	His	Leu	Asp	Val	Leu	Thr	Gly	Phe	His	Leu	Leu
			260					265					270		
Asp	Gly	Lys	Thr	His	Leu	Phe	lle	Leu	Glu	Gly	Leu	Ala	Asp	Gln	Gly
		275					280					285			
Leu	Arg	Gln	Leu	Trp	Glu	Asn	His	Gln	Ser	Trp	He	Р́го	Arg	Ser	Glu
	290					295					300				
His	Arg	Lys	Tyr	Lys	Val	Leu	Tyr	Asn	Ser	Gln	Leu	Leu	Phe	Arg	Ser
305					310					315					320
Arg	Leu	Tyr	Gly	Asp	Leu	Glu	Ala	He	Leu	Tyr	His	Val	His	Leu	Phe
				325					330					335	
G1n	Pro	Thr	Glu	Leu	Leu	Leu	Gln	Gln	Ala	Val	Phe	Phe	Leu	Arg	Asp
			340					345					350		
Thr	Glu	Arg	Arg	Arg	Val	Phe		Ala	Leu	Ala	Arg		His	Asp	He
		355					360					365			
Cys		Asn	Ser	Thr	Thr		Trp	Asp	Val	Thr		Arg	Asp	Leu	Leu
	370					375			~	0.1	380				
	Ser	Ser	Ala	Met		Lys	Asp	Leu	Ser		Glu	Phe	Gly	Met	
385	C	C1	61	C1	390	TI		C1	,	395	101	4.7	,	n	400
Leu	Ser	Gln	61u		Leu	ınr	Asp	Glu		Leu	Phe	Ala	Leu		Pro
Cln	Dwo	A 1 a	Dno	405	Lau	C1	A on	Turn	410	Com	Λ	Aan	Con	415	lau
GIH	110	Ala	420	ASII	Leu	Giu	ASP	425	nis	261	AI g	ASII	430	1111	Leu
Thr	Lau	Glu		Hic	Δla	Hic	Gln		Pro	Ara	lve	Ara		Thr	Tyr
1111	Leu	435	116	1113	MIG	1113	440	Old	110	ni g	Lys	445	1110	1111	1 y 1
Ser	Gln	Asp	Tyr	Leu	Ser	Ala		Val	Glu	Pro	Leu		Len	Lvs	Glu
001	450	тр	.,,	БСС	001	455	,no c	,	014	110	460		Boa	2,0	01.0
Glu		Lys	Lvs	Ala	Gln		Lvs	Ser	Arg	Gln		Trp	Leu	Thr	Ala
465		·	•		470	-,-	3		0	475					480
	Gly	Phe	Gln	Val		Gly	Leu	Gln	Ser		Thr	Glu	Ser	Ser	Phe
-				485		-			490	-				495	
Gln	Asn	Leu	Lvs	Leu	Pro	Pro	Ilα	Lve	Glu	Leu	Asn	Glu	G1n	Trn	lve

500 505 510 Glu Asn Ser Leu Phe Ala Asn Val Leu Glu Pro Val Leu Asp Arg Asp 515 520 525 Arg Trp Ser Trp Asp Arg His His Val Asp Phe Asp Leu Tyr Lys Lys 530 535 540 Pro Pro Pro Phe Leu Glu Leu Leu Pro Ser Pro Ala Pro Lys Pro Val 550 555 560 Thr Val Arg Lys Lys Gly Asn Ser Pro Ile Ser 565 570

<210> 3642

<211> 673

<212> PRT

<213> Homo sapiens

<400> 3642

Met Asp His Ser Cys Thr Arg Phe Ile His Arg Arg Gly Pro Pro Thr

1 5 10 15

Arg Thr Arg Ala Gly Phe Lys Arg Gly Lys Arg Pro Arg Ile Gln Gln

20 25 30

Arg Pro Arg Ala Arg Val Ser Gly Thr Ile Pro Ala Ser Arg Leu His
35 40 45

Pro Ala Pro Ala Ser Gln Pro Gly Pro Cys Pro Ala Pro Gly His Cys
50 55 60

Pro Val Gly Pro Ala His Glu Arg Pro Met Gly Ser Ser Gln Glu Glu 65 70 75 80

Gly Leu Arg Cys Gln Pro Ser Gln Pro Asp His Asp Ala Asp Gly His
85 90 95

Cys Gly Pro Asp Leu Glu Gly Ala Glu Arg Ala Ser Ala Thr Pro Gly
100 105 110

Pro Pro Gly Leu Leu Asn Ser His Arg Pro Ala Asp Ser Asp Asp Thr
115 120 125

Asn Ala Ala Gly Pro Ser Ala Ala Leu Leu Glu Gly Leu Leu Gly 130 135 140

Gly Gly Lys Pro Ser Pro His Ser Thr Arg Pro Gly Pro Phe Phe Tyr

145					150					155					160
He	Gly	Gly	Ser	Asn	Gly	Ala	Thr	I1e	Пe	Ser	Ser	Tyr	Cys	Lys	Ser
				165					170					175	
Lys	Gly	Trp	Gln	Arg	He	His	Asp	Ser	Arg	Arg	Asp	Asp	Tyr	Thr	Leu
			180					185					190		
Lys	Trp	Cys	Glu	Val	Lys	Ser	Arg	Asp	Ser	Tyr	Gly	Ser	Phe	Arg	Glu
		195					200					205			
Gly	Glu	Gln	Leu	Leu	Asp	Gln	Leu	Pro	Asn	Asn	Lys	Leu	Leu	Thr	Thr
	210					215					220				
Lys	He	Gly	Leu	Leu	Ser	Thr	Leu	Arg	Gly	Arg	Ala	Arg	Ala	Met	Ser
225					230					235					240
Lys	Ala	Ser	Lys	Val	Pro	Gly	Gly	Val	Gln	Ala	Arg	Leu	Glu	Lys	Asp
				245					250					255	
Ala	Ala	Ala	Pro	Ala	Leu	Glu	Asp	Leu	Pro	Trp	Thr	Ser	Pro	Gly	Tyr
			260					265					270		
Leu	Arg	Pro	Gln	Arg	Val	Leu	Arg	Met	Glu	Glu	Phe	Phe	Pro	Glu	Thr
		275					280					285			
Tyr	Arg	Leu	Asp	Leu	Lys	His	Glu	Arg	Glu	Ala	Phe	Phe	Thr	Leu	Phe
	290					295					300				
Asp	Glu	Thr	Gln	He	Trp	Ile	Cys	Lys	Pro	Thr	Ala	Ser	Asn	Gln	Gly
305					310					315					320
Lys	Gly	11e	Phe	Leu	Leu	Arg	Asn	Gln	Glu	Glu	Val	Ala	Ala	Leu	Gln
				325					330					335	
Ala	Lys	Thr	Arg	Ser	Met	Glu	Asp	Asp	Pro	He	His	His	Lys	Thr	Pro
			340					345					350		
Phe	Arg	Gly	Pro	Gln	Äla	Arg	Val	Va]	Gln	Arg	Tyr	lle	Gln	Asn	Pro
		355					360					365			
Leu	Leu	Val	Asp	Gly	Arg	Lys	Phe	Asp	Val	Arg	Ser	Tyr	Leu	Leu	He
	370					375					380				
Ala	Cys	Thr	Thr	Pro	Tyr	Met	lle	Phe	Phe	Gly	His	Gly	Tyr	Ala	Arg
385					390					395					400
Leu	Thr	Leu	Ser	Leu	Tyr	Asp	Pro	His	Ser	Ser	Asp	Leu	G] y	Gly	His
				405					410					415	
Leu	Thr	Asn	Gln	Phe	Met	Gln	Lys	Lys	Ser	Pro	Leu	Tyr	Met	Leu	Leu
			420					425					430		
lve	G1n	Hic	Thr	Va1	Trn	Sor	Mot	G1n	Hic	Lau	Aen	Ara	Tyr	Hα	Sor

		435					440					445			
Asp	Thr	Phe	Trp	Lys	Ala	Arg	Gly	Leu	Ala	Lys	Asp	Trp	Val	Phe	Thr
	450					455					460				
Thr	Leu	Lys	Lys	Arg	Met	Gln	Gln	He	Met	Ala	His	Cys	Phe	Leu	Ala
465					470					475					480
Ala	Lys	Pro	Lys	Leu	Asp	Cys	Lys	Leu	Gly	Tyr	Phe	Asp	Leu	He	G1 y
				485					490					495	
Cys	Asp	Phe	Leu	Ile	Asp	Asp	Asn	Phe	Lys	Val	Trp	Leu	Leu	Glu	Met
			500					505					510		
Asn	Ser	Asn	Pro	Ala	Leu	His	Thr	Asn	Cys	Glu	Val	Leu	Lys	Glu	Val
		515					520					525			
He	Pro	Gly	Val	Val	lle	Glu	Thr	Leu	Asp	Leu	Val	Leu	Glu	Thr	Phe
	530					535					540				
Arg	Lys	Ser	Leu	Arg	Gly	Gln	Lys	Met	Leu	Pro	Leu	Leu	Ser	Gln	Arg
545					550					555					560
Arg	Phe	Val	Leu	Leu	His	Asn	G1 y	Glu	Ala	Asp	Pro	Arg	Pro	His	Leu
				565					570					575	
Gly	Gly	Ser	Cys	Ser	Leu	Arg	Arg	Trp	Pro	Pro	Leu	Pro	Thr	Arg	G1n
			580					585					590		
Ala	Lys	Ser	Ser	Gly	Pro	$\operatorname{Pro}$	Met	Pro	His	Ala	Pro	Asp	Gln	Pro	G1 y
		595					600					605			
Ala	Arg	Arg	Pro	Ala	Pro	Pro	Pro	Leu	Val	Pro	Gln	Arg	Pro	Arg	Pro
	610					615					620				
Pro	Gly	Pro	Asp	Leu	Asp	Ser	Ala	His	Asp	Gly	Glu	Pro	Gln	Ala	Pro
625					630					635					640
Gly	Thr	Glu	Gln	Ser	Gly	Thr.	Gly	Asn	Arg	His	Pro	Ala	Gln	Glu	Pro
				645					650					655	
Ser	Pro	Gly	Thr	Ala	Lys	Glu	Glu	Arg	Glu	Glu	Pro	Glu	Asn	Ala	Arg
			660					665					670		
Pro															

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3643

Met Pro Ser Phe Ala Leu Val Pro Trp Ala Ala Val Gln Trp His His 1 5 10 15

Leu Gly Ser Pro Gln Pro Pro Pro Pro Lys Phe Lys Arg Phe Ser Cys
20 25 30

Leu Ser Leu Pro Ser Ile Trp Asp Tyr Arg Tyr Ala Pro Pro Arg Pro
35 40 45

Ala Asn Phe Val Phe Leu Val Glu Thr Gly Phe Leu His Val Gly Gln 50 55 60

Ala Gly Leu Glu Leu Pro Thr Ser Gly Asp Ser Pro Ala Ser Ala Ser 65 70 75 80

Gln Ser Thr Gly 11e Thr Gly Val Ser His Cys Ala Trp Pro Thr Asn 85 90 95

Thr Arg Phe Tyr Ser Gly Pro Phe Thr Val Asn Val Gly Gly Pro Trp
100 105 110

Arg Met Ala Thr Pro Gly Leu Phe Ala Glu Ala Trp Thr Ala Gln Gln
115 120 125

Ala Glu Leu Lys Gln Leu Arg Gln Tyr Gln Leu Lys Gly His Pro Ala 130 135 140

Val Arg Val Pro Arg Leu Gln Glu

145 150

<210> 3644

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3644

Met Ser Arg Ala Leu Arg Pro Leu Ser Cys Leu Arg Pro Leu Ser Ser

1 5 10 15

Pro Arg Ala Gly Thr Thr Gly Val Arg Val Thr Arg Thr Ser Trp Gly
20 25 30

Ser Ala Trp Pro Ser Phe Gly Met Ser Pro Gly Gly Pro Arg Met Gly

35 40 45 Gly Gly Trp Asp Leu Pro Asp Val His Glu Val Leu Ile His Ala Pro 50 55 60 Arg Val Leu Gly Ser Asp Arg Asp Gly Asn Pro Val Leu Leu Gln Glu 70 75 80 65 Arg Asp Ser Thr Gly Gly Gly Lys Ala Ala Gly Arg Thr Arg Glu Val 90 Arg Pro Arg Gly Pro Ala Phe Ser Glu Ser Pro Lys Leu Trp Pro Pro 100 105 110 Phe Arg Gln Asp Pro Gly Tyr Leu Leu Val Leu Val Thr Val Thr Ser 120 Leu Gly Gly Pro Tyr Cys Trp Thr Cys Pro Arg Glu Thr Ala Gly Pro 130 135 140 Cys Val Cys Asn Ala Asp Leu Gly Gly Ser Phe Gln Lys Thr Leu Ser 145 150 155 160 Leu His Leu Lys Asp Pro 165

<210> 3645

<211> 293

<212> PRT

<213> Homo sapiens

<400> 3645

Met Asn Val Met Asn Val Gly Arg Pro Leu Gly Leu Val His Ser Leu

1 5 10 15

Phe Ser Ile Arg Glu Phe Ile Leu Lys Lys Asp Thr Met Asn Ala Met
20 25 30

Ser Val Ala Lys Pro Ser Ser 11e Ala Gln Ala Leu Leu Asp Thr Arg 35 40 45

Lys Phe IIe Leu Glu Lys Asn His IIe Cys Val Met Asn Val Gly Arg 50 55 60

Ala Ser Gly Arg Val Leu Ser Leu Ser Gly 1fe Arg Glu Phe Ile Gln
65 70 75 80

Gly Thr Asn Pro Met Asn Val Met Asn Val Gly Lys Leu Leu Ala Arg

				85					90					95	
Thr	Gln	Arg	Leu	Leu	Asp	He	Leu	Glu	Phe	Ile	Leu	Val	Arg	Ser	Pro
			100					105					110		
Met	Tyr	Val	Arg	Asn	Val	Gly	Arg	Pro	Ser	Gly	Gly	Thr	Gln	Asn	Phe
		115					120					125			
Leu	Asp	Met	۸rg	Glu	Phe	Thr	Leu	Glu	Arg	Asn	Pro	Met	Asn	Ala	Leu
	130					135					140				
Ser	Val	Glu	Arg	Leu	Ser	Gly	Gly	Pro	Leu	Thr	Leu	Leu	Ser	Thr	Arg
145					150					155					160
Glu	Phe	He	Leu	Glu	Arg	Asn	Pro	He	Asn	Val	Met	Ser	Val	Gln	Glu
				165					170					175	
Pro	Phe	Gly	lle	lle	Leu	Ser	Cys	Phe	Ser	Thr	Arg	Lys	Phe	He	Leu
			180					185					190		
Glu	Arg	Asn	Leu	Met	Asn	Val	Ala	Ser	Val	Arg	Lys	His	Leu	Ala	Ser
		195					200					205			
He	Pro	Asn	Leu	Ser	Tyr	lle	Arg	Glu	Phe	Thr	Leu	Glu	Arg	Ser	Leu
	210					215	-				220				
Met	Ser	Ala	Lys	Asn	Val	Arg	Arg	Leu	Leu	Val	Gly	Ala	Leu	Thr	Ser
225					230					235					240
Ser	Asp	He	Lys	Val	Phe	Thr	Val	Trp	Ser	Asn	Leu	Gln	Asn	Arg	Lys
	-		-	245					250					255	
Ala	Phe	Ser	G1 v	Lys	Ala	Lys	Val	G]n	Leu	lle	His	Leu	Phe	He	He
			260	-				265					270		
Cys	Lys	Tyr	Ala	Pro	Gln	Va]	Phe	Lys	Ser	Asn	Glu	Trp	Thr	Glu	Pro
		275					280					285			
Pro	Leu	Ser	Ser	His											
	290														

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3646

Met Asn Arg Glu His Ser Ala Ser Ile Pro Val Pro Leu Val Ala Leu

1				5					10					15	
Gln	Ser	Ala	Gly	Thr	Arg	Arg	Asn	Gln	Lys	Pro	Pro	Gly	Arg	Ala	Phe
			20					25					30		
Cys	Leu	Tyr	Gly	Val	Lys	Ala	Val	Ser	Ser	Asn	Leu	Cys	Phe	Leu	Lys
		35					40					45			
Gln	Arg	Asn	Asn	Leu	Asp	Glu	Thr	Asn	Phe	Pro	Gln	Arg	Lys	Gly	Arg
	50					55					60				
Ala	His	Ser	Glu	Leu	Val	Lys	Lys	Met	Pro	Gly	Ala	Gly	Ser	lle	Leu
65					70					75					80
Lys	Trp	Lys	Arg	Trp	Cys	Leu	Ala	Met	Leu	Pro	Lys	Leu	Val	Leu	Asn
				85					90					95	
Ser	Trp	His	G1n	Va1	He	Leu	Leu	Pro	Gln	Pro	Pro	Lys	Val	Leu	Gly
			100					105					110		
Leu	Gln	Asn	Lys	Thr	He	Ser	Arg	Arg	Val	Cys	Gly	lle	Leu	Arg	Thr
		115					120					125			
Asp	Thr	Gly	Arg	Asn	Lys	G1 y	Tyr	Arg	Ser	Glu					
	130					135									
<210	)> 36	647													
<213	1> 58	38													
<212	2> PI	<b>T</b>													
<213	3> He	omo s	sapie	ens											
<400	)> 36	647													
Met	Ala	Asn	Leu	Cys	Thr	Pro	Ser	Ser	Thr	Ala	Asn	Ser	Cys	Ser	Ser
1				5					10					15	
Ser	Ala	Ser	Asn	Thr	Pro	Gly	Ala	Pro	Glu	Thr	His	Pro	Ser	Ser	Ser
			20					25					30		
Pro	Thr	Pro	Thr	Ser	Ser	Asn	Thr	Gln	Glu	G] u	Ala	Gln	Pro	Ser	Ser
		35					40					45			

Val Ser Asp Leu Ser Pro Met Ser Met Pro Phe Ala Ser Asn Ser Glu

Pro Ala Pro Leu Thr Leu Thr Ser Pro Arg Met Val Ala Ala Asp Asn

Gln Asp Thr Ser Asn Leu Pro Gln Leu Ala Val Pro Ala Pro Arg Val

				85					90					95	
Ser	His	Arg	Met	Gln	Pro	Arg	Gly	Ser	Phe	Tyr	Ser	Met	Val	Pro	Asn
			100					105					110		
Ala	Thr	lle	His	Gln	Asp	Pro	Gln	Ser	He	Phe	Val	Thr	Asn	Pro	Val
		115					120					125			
Thr	Leu	Thr	Pro	Pro	Gln	Gly	Pro	Pro	Ala	Ala	Val	Gln	Leu	Ser	Ser
	130					135					140				
Ala	Val	Asn	lle	Met	Asn	Gly	Ser	Gln	Met	His	He	Asn	Pro	Ala	Asn
145					150					155					160
Lys	Ser	Leu	Pro	Pro	Thr	Phe	Gly	Pro	Ala	Thr	Leu	Phe	Asn	His	Phe
				165					170					175	
Ser	Ser	Leu	Phe	Asp	Ser	Ser	Gln	Val	Pro	Ala	Asn	Gln	Gly	Trp	Gly
			180					185					190		
Asp	Gly	Pro	Leu	Ser	Ser	Arg	Va]	Ala	Thr	Asp	Ala	Ser	Phe	Thr	Val
		195					200					205			
Gln	Ser	Ala	Phe	Leu	Gly	Asn	Ser	Val	Leu	Gly	His	Leu	Glu	Asn	Met
	210					215					220				
His	Pro	Asp	Asn	Ser	Lys	Ala	Pro	Gly	Phe	Arg	Pro	Pro	Ser	Gln	Arg
225					230					235					240
Val	Ser	Thr	Ser	Pro	Val	Gly	Leu	Pro	Ser	lle	Asp	Pro	Ser	Gly	Ser
				245					250					255	
Ser	Pro	Ser	Ser	Ser	Ser	Ala	Pro	Leu	Ala	Ser	Phe	Ser	Gly	11e	Pro
			260					265					270		
Gly	Thr		Val	Phe	Leu	Gln		Pro	Ala	Pro	Va]		Thr	Pro	Ser
		275					280					285			
Phe		Arg	Gln	His	Phe	Ser		His	Pro	Trp			Ala	Ser	Asn
	290					295				0	300				15
	Cys	Asp	Ser	Pro		Pro	Ser	Val	Ser		GIy	Ser	Ser	Ser	
305	c	. 1	TC1	C	310	D	10	Tr.I		315	61	D	,	6.1	320
Leu	Ser	Ala	Ihr		ATa	Pro	Pro	Ihr		Gly	GIn	Pro	Lys		Val
C	4.1	C	C I	325		,	1.1	n	330 D	D	3.1	C1	TI	335	
Ser	Ala	Ser		Asp	Arg	Lys	пе		Pro	Pro	11e	61 y		61u	Arg
1	۸1.	Δ	340	Α	C1	C1	C1	345	V . 1	A 1	C1	A 1	350	41.	C1
reu	MIS		116	arg	OTH	Gly		ser	val	ATA	OIB	365	1.0	MIA	OTY
Thr	Ser	355 Phe	Val	Ala	Pro	Va]	360	Hic	Ser	Glv	116		Ser	Pho	Glv
1 1 1 1	UUL	1110	, U 1	111(1	110	· (1)	O I V	1113	() ()	O I V	110	עונו	U - U - I	1 110	OIV

	370					375					380				
Val	Asn	Ala	Val	Ser	Glu	Gly	Leu	Ser	Gly	Trp	Ser	Gln	Ser	Val	Met
385					390					395					400
Gly	Asn	His	Pro	Met	His	Gln	Gln	Leu	Ser	Asp	Pro	Ser	Thr	Phe	Ser
				405					410					415	
Gln	His	Gln	Pro	Met	Glu	Arg	Asp	Asp	Ser	Gly	Met	Val	Ala	Pro	Ser
			420					425					430		
Asn	He	Phe	His	Gln	Pro	Met	Gly	Leu	Pro	He	Ser	Met	Tyr	Gly	Gly
		435					440					445			
Thr	He	Ile	Pro	Ser	His	Pro	Gln	Leu	Ala	Asp	Val	Pro	Gly	G1 y	Pro
	450					455					460				
Leu	Phe	Asn	Gly	Leu	His	Asn	Pro	Asp	Pro	Ala	Trp	Asn	Pro	Met	Пе
465					470					475					480
Lys	Val	lle	Gln	Asn	Ser	Thr	Glu	Cys	Thr	Asp	Ala	Gln	Gln	Ala	Ser
				485					490					495	
Leu	Leu	Pro	Ser	Val	Pro	Ala	Leu	Lys	Gly	Glu	Пе	Pro	Ser	Pro	Gln
			500					505					510		
Leu	Thr	Arg	Pro	Lys	Lys	Arg	He	Gly	Arg	Pro	Met	Val	Ala	Ser	Pro
		515					520					525			
Asn	Gln	Arg	His	Gln	Asp	His	Leu	Arg	Pro	Lys	Val	Pro	Ala	Gly	Val
	530					535					540				
Gln	Glu	Leu	Thr	His	Cys	Pro	Asp	Thr	Pro	Leu	Leu	Pro	Pro	Ser	Asp
545					550					555					560
Ser	Arg	Gly	His	Asn	Ser	Ser	Asn	Ser	Pro	Ser	Leu	Gln	Ala	Gly	G1 y
				565					570					575	
Ala	Glu	Gly	Ala	Gly	Asp	Arg	Gly	Arg	Asp	Thr	Arg				
			580					585							

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3648

Met Phe Leu Ser Leu Lys Met Phe Cys Trp Gly Arg His Ala Met Val

1 5 10 15 Leu Arg Ile Ala Pro Phe Ser Asp Asp Leu Leu Leu Thr Ser Asp Thr 25 Tyr Arg Asp Ser Ala Gly Ala Cys Gln Ser Ser Asn Thr Ser Arg Asn 40 Val Arg lle Trp Asp Arg Ser Gln Asp lle His Leu Ala Leu Phe 55 Trp Glu Glu Glu Ile His Phe Leu Ala Cys Ala Gly Trp Leu Thr Pro 65 70 75 Val Ile Pro Gly Arg Trp Asp Tyr Gly Cys Glu Pro Pro His Pro Ala 85 90 Cys Phe Thr Ser Phe Asn Ser Val Thr Val Asp Asp Val Pro His Arg 100 105 110 Pro Ala Ser His Ala Thr Cys Glu Ser 115 120

<210> 3649

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3649

Met Val Ala Glu Glu Gly Ser Arg Cys Leu Tyr Pro Gly Gln Leu Phe

1 5 10 15

Leu Leu Leu His Phe Pro Val Val Gly Gln Cys Trp His Cys Glu Arg
20 25 30

Cys Glu Gly Tyr Asn Tyr Gln Val Asp Glu Leu Ser Cys Glu Leu Cys

35 40 45

Pro Leu Asp Gln Arg Pro Asn Met Asn Arg Thr Gly Cys Gln Leu 11e 50 55 60

Pro 11e 11e Lys Leu Glu Trp His Ser Pro Trp Ala Val Val Pro Val 65 70 75 80

Phe Val Ala Ile Leu Gly Ile Ile Ala Thr Thr Phe Val Ile Val Thr
85 90 95

Phe Val Arg Tyr Asn Asp Thr Pro lle Val Arg Ala Ser Gly Arg Glu

			100					105					110		
Leu	Ser	Tyr	Val	Leu	Leu	Thr	Gly	lle	Phe	Leu	Cys	Tyr	Ser	Пе	Thr
		115					120					125			
Phe	Leu	Met	lle	Ala	Ala	Pro	Asp	Thr	He	He	Cys	Ser	Phe	Arg	Arg
	130					135					140				
Val	Phe	Leu	Gly	Leu	Gly	Met	Cys	Phe	Ser	Tyr	Ala	Ala	Leu	Leu	Thr
145					150					155					160
Lys	Thr	Asn	Arg	Ile	His	Arg	lle	Phe	Glu	Gln	Gly	Lys	Lys	Ser	Val
				165					170					175	
Thr	Ala	Pro	Lys	Phe	Ile	Ser	Pro	Ala	Ser	Gln	Leu	Val	Ile	Thr	Phe
			180					185					190		
Ser	Leu	lle	Ser	Val	Gln	Leu	Leu	Gly	Val	Phe	Val	Trp	Phe	Val	Val
		195					200					205			
Asp	Pro	Pro	His	lle	He	He	Asp	Tyr	Gly	Glu	Gln	Arg	Thr	Leu	Asp
	210					215					220				
Pro	Glu	Lys	Ala	Arg	Gly	Val	Leu	Lys	Cys	Asp	lle	Ser	Asp	Leu	Ser
225					230					235					240
Leu	He	Cys	Ser	Leu	Gly	Tyr	Ser	Ile	Leu	Leu	Met	Va1	Thr	Cys	Thr
				245					250					255	
Val	Tyr	Ala	lle	Lys	Thr	Arg	Gly	Val	Pro	Glu	Thr	Phe			
			260					265							

<211> 540

<212> PRT

<213> Homo sapiens

<400> 3650

	50					55					60				
Phe	Asp	His	His	Ala	Thr	His	Ile	Leu	Gln	Phe	Asp	Arg	Tyr	Leu	G1 y
65					70					75					80
Leu	Leu	Ser	Glu	Asn	Cys	Leu	His	Ser	Pro	Arg	Leu	Ala	Ala	Ala	Val
				85					90					95	
Arg	Glu	Phe	Glu	Gln	Ser	Val	Gln	Gly	Gly	Ser	Gln	Thr	Ala	Lys	His
			100					105					110		
Arg	Leu	Leu	Arg	Val	Val	Gln	Arg	Leu	Phe	Gln	Tyr	Gln	Val	Leu	Leu
		115					120					125			
Thr	Asp	Tyr	Leu	Asn	Asn	Leu	Cys	Pro	Asp	Ser	Ala	Glu	Tyr	Asp	Asn
	130					135					140				
Thr	Gln	Gly	Ala	Leu	Ser	Leu	Πe	Ser	Lys	Val	Thr	Asp	Arg	Ala	Asn
145					150					155					160
Asp	Ser	Met	Glu	Gln	Gly	Glu	Asn	Leu	Gln	Lys	Leu	Val	His	lle	Glu
				165					170					175	
His	Ser	Val	Arg	Gly	Gln	Gly	Asp	Leu	Leu	Gln	Pro	Gly	Arg	Glu	Phe
			180					185					190		
Leu	Lys		Gly	Thr	Leu	Met	Lys	Val	Thr	Gly	Lys	Asn	Arg	Arg	Pro
		195					200					205			
Arg		Leu	Phe	Leu	Met		Asp	Val	Leu	Leu		Thr	Tyr	Pro	Gln
	210					215					220				
	Asp	Gly	Lys	Tyr		Leu	Lys	Asn	Thr		Ala	Val	Ala	Asn	
225					230					235	_				240
Lys	Val	Ser	Arg		Val	Met	Glu	Lys		Pro	Tyr	Ala	Leu		He
61	TP I	C	6.1	245	0	,			250		c	C	0	255	61
GIU	inr	Ser		Ser	Cys	Leu	Met		Ser	Ala	Ser	Ser		Ala	Glu
۸	A	C1	260 T	Т	C1	C	1	265	A	A 1	1	D	270	Λ	Т
Arg	ASP		тр	iyr	GIY	Cys	Leu	ser	Arg	мта	Leu		GIU	ASP	iyr
Lvc	410	275	A10	Lou	Alo	A10	280	Hic	Hic	Sor	Vol.	285	110	Ara	Clu
rys	290	0111	мла	Leu	ліа	295	Phe	1115	111.5	ser	300	Gju	116	MIG	Giu
Ara		Glv	Val	Ser	ا ما		Glu	Ara	Pro	Pro		Lau	Val	Pro	Val
305	1,0 U	013	, (1)	501	310	Ory	010	5	130	315	1 11.1	i, cu	• (1.1	110	320
	His	Val	Met	Met		Met	Asn	Cvs	Glv		Asn	Phe	Ser	Leu	
				325	- , 0			- 2 - 5	330	- , 0			_ ~ .	335	

Leu Arg Arg His His Cys His Ala Cys Gly Lys Ile Val Cys Arg Asn Cys Ser Arg Asn Lys Tyr Pro Leu Lys Tyr Leu Lys Asp Arg Met Ala Lys Val Cys Asp Gly Cys Phe Gly Glu Leu Lys Lys Arg Gly Arg Ala Val Pro Gly Leu Met Arg Glu Arg Pro Val Ser Met Ser Phe Pro Leu Ser Ser Pro Arg Phe Ser Gly Ser Ala Phe Ser Ser Val Phe Gln Ser lle Asn Pro Ser Thr Phe Lys Lys Gln Lys Lys Val Pro Ser Ala Leu Thr Glu Val Ala Ala Ser Gly Glu Gly Ser Ala 11e Ser Gly Tyr Leu Ser Arg Cys Lys Arg Gly Lys Arg His Trp Lys Lys Leu Trp Phe Val Ile Lys Gly Lys Val Leu Tyr Thr Tyr Met Ala Ser Glu Asp Lys Val Ala Leu Glu Ser Met Pro Leu Leu Gly Phe Thr Ile Ala Pro Glu Lys Glu Glu Gly Ser Ser Glu Val Gly Pro Ile Phe His Leu Tyr His Lys Lys Thr Leu Phe Tyr Ser Phe Lys Ala Glu Asp Thr Asn Ser Ala Gln Arg Trp Ile Glu Ala Met Glu Asp Ala Ser Val Leu 

<210> 3651

<211> 244

<212> PRT

<213> Homo sapiens

<400> 3651

Met Pro Arg Gly Phe His Asn Asn 1le Lys Ala 1le Pro Glu Lys

1 5 10 15

Ala	Phe	Met	Gly	Asn	Pro	Leu	Leu	Gln	Thr	He	His	Phe	Tyr	Asp	Asn
			20					25					30		
Pro	He	Gln	Phe	Val	Gly	Arg	Ser	Ala	Phe	Gln	Tyr	Leu	Pro	Lys	Leu
		35					40					45			
His	Thr	Leu	Ser	Leu	Asn	Gly	Ala	Met	Asp	He	Gln	Glu	Phe	Pro	Asp
	50					55					60				
Leu	Lys	Gly	Thr	Thr	Ser	Leu	Glu	Ile	Leu	Thr	Leu	Thr	Arg	Ala	G1 y
65					70					75					80
Ile	Arg	Leu	Leu	Pro	Ser	Gly	Met	Cys	Gln	Gln	Leu	Pro	Arg	Leu	Arg
				85					90					95	
Val	Leu	Glu	Leu	Ser	His	Asn	Gln	He	Glu	Glu	Leu	Pro	Ser	Leu	His
			100					105					110		
Arg	Cys	Gln	Lys	Leu	Glu	Glu	He	Gly	Leu	Gln	His	Asn	Arg	He	Trp
		115					120					125			
Glu	Пе	Gly	Ala	Asp	Thr	Phe	Ser	Gln	Leu	Ser	Ser	Cys	Asp	Ser	Thr
	130					135					140				
Gln	Ala	Leu	Val	Ala	Phe	Ser	Asp	Val	Asp	Leu	Ile	Leu	Glu	Ala	Ser
145					150					155					160
Glu	Ala	Gly	Arg	Pro	Pro	Gly	Leu	Glu	Thr	Tyr	Gly	Phe	Pro	Ser	Val
				165					170					175	
Thr	Leu	He	Ser	Cys	Gln	Gln	Pro	Gly	Ala	Pro	Arg	Leu	Glu	Gly	Ser
			180					185					190		
His	Cys	Val	Glu	Pro	Glu	Gly	Asn	His	Phe	Gly	Asn	Pro	Gln	Pro	Ser
		195					200					205			
Met	Asp	Gly	Glu	Leu	Leu	Leu	Arg	Ala	Glu	Gly	Ser	Thr	Pro	Ala	Gly
	210					215					220				
Gly	Gly	Leu	Ser	Gly	Gly	G1 y	Gly	Phe	Gln	Pro	Ser	Gly	Leu	Ala	Phe
225					230					235					240
Ala	Ser	His	Val												

<211> 477

<212> PRT

<213> Homo sapiens

<400	)> 36	652													
Met	Ala	His	Asn	Pro	Asn	Met	Thr	His	Leu	Lys	11e	Asn	Leu	Pro	Val
l				5					10					15	
Thr	Ala	Leu	Pro	Pro	Leu	Trp	Val	Arg	Cys	Asp	Ser	Ser	Asp	Pro	Glu
			20					25					30		
Gly	Thr	Cys	Trp	Leu	Gly	Ala	Glu	Leu	He	Thr	Thr	Asn	Asn	Ser	Пe
		35					40					45			
Thr	Gly	lle	Val	Leu	Tyr	Val	Val	Ser	Cys	Lys	Ala	Asp	Lys	Asn	Tyr
	50					55					60				
Ser	Val	Asn	Leu	Glu	Asn	Leu	Lys	Asn	Leu	His	Lys	Lys	Arg	His	His
65					70					75					80
Leu	Ser	Thr	Val	Thr	Ser	Lys	Gly	Phe	Ala	Gln	Tyr	Glu	Leu	Phe	Lys
				85					90					95	
Ser	Ser	Ala	Leu	Asp	Asp	Thr	lle	Thr	Ala	Ser	Gln	Thr	Ala	He	Ala
	•		100					105					110		
Leu	Asp	lle	Ser	Trp	Ser	Pro		Asp	Glu	lle	Leu		He	Pro	Pro
	_	115					120					125			
Leu		Ser	Thr	Ala	Thr		Asn	He	Lys	Val		Ser	Gly	Glu	Pro
	130	ь	,			135	Tr.		61		140	DI	,		., .
	Gly	Pro	Leu	Asn		Leu	lyr	Arg	Glu		Lys	Phe	Leu	Leu	
145	A T .	Α	C1 .	1	150	Tri .	C1	W 1	TI.	155	т	,	C1	D	160
Leu	Ala	Asp	Gly		Arg	Inr	GIY	vai		Glu	irp	Leu	GIU		Leu
C1	110	1	Con	165	Vol	C1	Lau	Vol	170	C1	Dha	Lau	Aan	175	1
01u	мта	Lys		ма	vaj	Glu	Leu		6111	Glu	rne	Leu	190	ASP	Leu
Aen	Lve	Leu	180 Asp	Clv	Pho	Clv	Asn	185 Ser	Thr	Lve	lve	Acn		Glu	Val
non	Lys	195	nsp	Oly	1116	Oly	200		1111	Lys	Lys	205	1111	Glu	vai
Glu	Thr	Leu	Lvs	His	Asn	Thr			Val	Asn	Arg		Val	Lvs	Arø
014	210	Bod	<b>D</b> , O		пор	215	711 G	1110			220	561		2,0	6
Leu		Lys	Val	Arg	Ser		Leu	Asp	Phe	Ala		Gln	Leu	Trp	Cvs
225		•		Ü	230	•		•		235				•	240
	Met	Ser	Ser	Ser	Val	lle	Ser	Tyr	Gln	Asp	Leu	Val	Lys	Cys	Phe
				245					250					255	
Thr	Leu	He	He	Gln	Ser	Leu	G1n	Arg	Gly	Asp	He	Gln	Pro	Trp	Leu
			260					265					270		

His Ser Gly Ser Asn Ser Leu Leu Ser Lys Leu 11e His Gln Ser Tyr His Gly Thr Met Asp Thr Val Ser Leu Ser Gly Thr 11e Pro Val Gln Met Leu Leu Glu 11e Gly Leu Asp Lys Leu Lys Lys Asp Tyr 11e Ser Phe Phe Ile Gly Gln Glu Leu Ala Ser Leu Asn His Leu Glu Tyr Phe Ile Ala Pro Ser Val Asp Ile Gln Glu Gln Val Tyr Arg Val Gln Lys Leu His His Ile Leu Glu Ile Leu Val Ser Cys Met Pro Phe Ile Lys Ser Gln His Glu Leu Leu Phe Ser Leu Thr Gln 11e Cys 11e Lys Tyr Tyr Lys Gln Asn Pro Leu Asp Glu Gln His Ile Phe Gln Leu Pro Val Arg Pro Thr Ala Val Lys Asn Leu Tyr Gln Ser Glu Lys Pro Gln Lys Trp Arg Val Glu lle Tyr Ser Gly Gln Lys Lys Ile Lys Thr Val Trp Gln Leu Ser Asp Ser Ser Pro Ile Asp His Leu Asn Phe His Lys Pro Asp Phe Ser Glu Leu Thr Leu Asn Gly Ser Leu Glu Glu Arg Ile Phe Phe Thr Asn Met Val Thr Cys Ser Gln Val His Phe Lys 

<210> 3653

<211> 486

<212> PRT

<213> Homo sapiens

<400> 3653

Met Leu Gly Glu Gly 11e Lys Glu Arg Gln Arg Arg 11e Lys Glu Phe 1 5 10 15

Gln	Glu	Lys	He	Asp	Lys	Val	Glu	Asp	Asp	Ile	Phe	Gln	His	Phe	Cys
			20					25					30		
Glu	Glu	He	Gly	Val	Glu	Asn	Пе	Arg	Glu	Phe	Glu	Asn	Lys	His	Val
		35					40					45			
Lys		Gln	Gln	Glu	He		Gln	Lys	Arg	Leu	G]u	Phe	Glu	Lys	Gln
	50					55					60				
	Thr	Arg	Leu	Asn		Gln	Leu	Glu	Tyr		Arg	Ser	His	Leu	
65					70		m.			75	/D)		0.1		80
Lys	Lys	Leu	Asn		He	Asn	Thr	Leu		Glu	Ihr	11e	GIn		Gly
Sor	C1	Aon	Tlo	85 Acn	u; c	Lou	Lva	Lvo	90	C1	C1	Aan	Cva	95	Cln
261	Giu	vsh	100	nsp	1115	Leu	Lys	105	міа	010	Gru	ASII	110	Leu	GIII
Thr	Val	Asn		Len	Met	Ala	Lys		Gln.	Gln	Leu	lvs		He	Άrσ
1112	, (1)	115	010	Bea	Moe	1110	120	0111	0111	OIII	Lou	125	qen	110	8
Val	Thr		Asn	Ser	Ser	Ala	Glu	Lys	Val	Gln	Thr		He	Glu	Glu
	130					135					140				
Glu	Arg	Lys	Lys	Phe	Leu	Ala	Val	Asp	Arg	Glu	Val	Gly	Lys	Leu	Gln
145					150					155					160
Lys	Glu	Val	Val	Ser	lle	Gln	Thr	Ser	Leu	Glu	Gln	Lys	Arg	Leu	Glu
				165					170					175	
Lys	His	Asn	Leu	Leu	Leu	Asp	Cys	Lys	Val	Gln	Asp	He	Glu	lle	He
			180					185					190		
Leu	Leu	Ser	Gly	Ser	Leu	Asp	Asp	He	He	Glu	Va]	Glu	Met	Gly	Thr
		195					200					205			
Glu		Glu	Ser	Thr	Gln		Thr	He	Asp	He		Glu	Lys	Glu	Glu
	210	61			<b>T</b>	215				0.1	220		,	. 1	
	Phe	61u	11e	Asp		Ser	Ser	Leu	Lys		Asp	Leu	Lys	Ala	
225	Sor	Acn	Cln	Clu	230	Clu	11a	Hic	Lau	235	Lou	Lou	Lou	Cln.	240
0111	361	nsp	OIII	245	116	Olu	Ala	1115	250	AI g	Leu	Leu	Leu	255	OIII
Val	Ala	Ser	G1n		Asp	He	Leu	Leu		Thr	Ala	Ala	Pro		Leu
			260		,			265	-, -				270		
Arg	Ala	Leu		Asn	Leu	Lys	Thr		Arg	Asp	Lys	Phe		Glu	Ser
		275					280					285			
Thr	Asp	Ala	Phe	Glu	Ala	Ser	Arg	Lys	Glu	Ala	Arg	Met	Cys	Arg	Gln
	290					295					300				

Glu Phe Glu Gln Val Lys Lys Arg Arg Tyr Asp Leu Phe Thr Gln Cys Phe Glu His Val Ser Ile Ser Ile Asp Gln Ile Tyr Lys Lys Leu Cys 330 Arg Asn Asn Ser Ala Gln Ala Phe Leu Ser Pro Glu Asn Pro Glu Glu 340 345 350 Pro Tyr Leu Glu Gly Ile Ser Tyr Asn Cys Val Ala Pro Gly Lys Arg 360 365 Phe Met Pro Met Asp Asn Leu Ser Gly Gly Glu Lys Cys Val Ala Ala 370 375 Leu Ala Leu Leu Phe Ala Val His Ser Phe Arg Pro Ala Pro Phe Phe 390 395 400 Val Leu Asp Glu Val Asp Ala Ala Leu Asp Asn Thr Asn Ile Gly Lys 405 410 Val Ser Ser Tyr Ile Lys Glu Gln Thr Gln Asp Gln Phe Gln Met Ile 420 425 Val Ile Ser Leu Lys Glu Glu Phe Tyr Ser Arg Ala Asp Ala Leu Ile 435 440 445 Gly 11e Tyr Pro Glu Tyr Asp Asp Cys Met Phe Ser Arg Val Leu Thr 455 460 Leu Asp Leu Ser Gln Tyr Pro Asp Thr Glu Gly Gln Glu Ser Ser Lys 470 475 480 Arg His Gly Glu Ser Arg 485

<210> 3654

<211> 176

<212> PRT

<213> Homo sapiens

<400> 3654

Met Gly Asn His Glu Leu Met Thr Ser Trp Leu Leu Asp Val Arg Lys

1 5 10 15

Asn Leu Gln Ser Gln Arg Glu Leu Ser Lys Phe Cys Pro Glu Gln Thr

	٠		20					25					30		
Glu	Gly	Trp	Arg	Cys	His	Arg	Leu	Arg	Trp	Glu	Asn	Gly	Arg	Cys	His
		35					40					45			
Arg	Leu	Gln	Gly	Lys	Val	Gly	Asp	Gln	Leu	Arg	Ala	Pro	Glu	Pro	Ser
	50					55					60				
Trp	Lys	Glu	Phe	Pro	He	Gln	Pro	Ala	Ser	Val	Ser	Ala	Ser	Val	Leu
65					70					75					80
Phe	Leu	Met	Thr	Leu	Arg	Val	Leu	Ala	Ser	Gly	Ser	Phe	Met	Met	Gln
				85					90					95	
Arg	Val	Pro	Pro	Ser	His	Pro	Gly	Arg	Leu	Arg	Ala	Pro	Ala	Ser	Ser
			100					105					110		
Trp	Gln	Pro	Gly	Ala	Arg	Leu	Arg	He	Trp	Arg	Pro	Thr	Thr	Gly	Trp
		115					120					125			
Ser	Leu	Ala	Ala	Thr	Ser	Gln	Arg	Arg	Val	Ser	Ser	Pro	Val	Val	Ser
	130					135					140				
Cys	Gly	Arg	Val	Ala	Val	Thr	Arg	Ser	Arg	Thr	Arg	Asp	Ser	Trp	Pro
145					150					155					160
Trp	Cys	Pro	Ser	Arg	Ser	Pro	Arg	Cys	Val	Ala	Cys	Arg	Leu	Phe	Phe
				165					170					175	

<211> 470

<212> PRT

<213> Homo sapiens

<400> 3655

Met Arg Gly His Lys Gly Ala Lys Gly Glu Ile Gly Glu Pro Gly Arg

I 5 10 15

Gln Gly His Lys Gly Glu Glu Gly Asp Gln Gly Glu Leu Gly Glu Val

Gln Gly His Lys Gly Glu Glu Gly Asp Gln Gly Glu Leu Gly Glu Val 20 25 30

Gly Ala Gln Gly Pro Pro Gly Ala Gln Gly Leu Arg Gly 11e Thr Gly
35 40 45

lle Val Gly Asp Lys Gly Glu Lys Gly Ala Arg Gly Leu Asp Gly Glu  $50 \,$   $\,$   $\,$   $\,$   $\,$   $60 \,$ 

Pro Gly Pro Gln Gly Leu Pro Gly Ala Pro Gly Asp Gln Gly Gln Arg

}

65					70					75					80
Gly	Pro	Pro	Gly	Glu	Ala	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Ala	Glu	Gly
				85					90					95	
Ala	Arg	Gly	lle	Pro	Gly	Leu	Pro	Gly	Pro	Lys	Gly	Asp	Thr	Gly	Leu
			100					105					110		
Pro	Gly	Val	Asp	Gly	Arg	Asp	Gly	lle	Pro	Gly	Met	Pro	Gly	Thr	Lys
		115					120					125			
Gly	Glu	Pro	Gly	Lys	Pro	Gly	Pro	Pro	Gly	Asp	Ala	Gly	Leu	Gln	Gly
	130					135					140				
Leu	Pro	Gly	Val	Pro	Gly	Ile	Pro	Gly	Ala	Lys	Gly	Val	Ala	Gly	Glu
145					150					155					160
Lys	Gly	Ser	Thr	Gly	Ala	Pro	Gly	Lys	Pro	Gly	Gln	Met	Gly	Asn	Ser
				165					170					175	
Gly	Lys	Pro	Gly	Gln	Gln	Gly	Pro	Pro	Gly	Glu	Val	Gly	Pro	Arg	Gly
			180					185					190		
Pro	Gln	Gly	Leu	Pro	Gly	Ser	Arg	Gly	Glu	Leu	Gly	Pro	Val	Gly	Ser
		195					200					205			
Pro	Gly	Leu	Pro	Gly	Lys	Leu	Gly	Val	Val	Gly		Pro	Gly	Pro	Lys
	210					215					220				
Gly	Glu	Gln	Gly	Ala	Ser	Gly	Glu	Glu	Gly	Glu	Ala	Gly	Glu	Arg	Gly
225					230					235					240
Głu	Leu	Gly	Asp	lle	G1 y	Leu	Pro	Gly	Pro	Lys	Gly	Ser	Ala	Gly	Asn
				245					250					255	
P.ro	Gly	Glu		Gly	Leu	Arg	Gly		G1 u	Gly	Ser	Arg		Leu	Pro
			260					265					270		
Gly	Val		Gly	Pro	Arg	Gly		Pro	G1 y	Pro	Arg		Val	Gln	Gly
		275					280					285	_		
Glu		Gly	Ala	Thr	Gly	Leu	Pro	Gly	Val	GIn		Pro	Pro	Gly	Arg
	290	m.		0.1		295					300				٠.
	Pro	lhr	Asp	GIn		He	Lys	GIn	Val		Met	Arg	Val	He	
305		151		6.1	310					315				_	320
6Ju	HIS	Phe	Ala		Met	Ala	Ala	Ser		Lys	Arg	Pro	Asp		GTy
	T)	6.1		325 D	61		D	0.1	330	Б	0.1		Б	335	Б
на	ınr	61 y		rro	61 y	Arg	Pro		Pro	Pro	Gly	Pro		Gly	Pro
Du-	61	C1	340	C1	Dha	Pro	C1	345	M~*	C1	<b>71</b> -	Λ	350	I	D.
110	UIV	ULL	ASI	VIIV	1 116,	111()	1111	11111	arte, t	ULIV	1 1 (-)	MID	ULLV	1 4.11	- $        -$

Gly Ile Lys Gly Pro Pro Gly Ala Leu Gly Leu Arg Gly Pro Lys Gly Asp Leu Gly Glu Lys Gly Glu Arg Gly Pro Pro Gly Arg Gly Pro Asn Gly Leu Pro Gly Ala Ile Gly Leu Pro Gly Asp Pro Gly Pro Ala Ser Tyr Gly Arg Asn Gly Arg Asp Gly Glu Arg Gly Pro Pro Gly Val Ala Gly lle Pro Gly Val Pro Gly Pro Pro Gly Pro Pro Gly Leu Pro Gly Phe Cys Glu Pro Ala Ser Cys Thr Met Gln Ala Gly Gln Arg Ala Phe Asn Lys Gly Pro Asp Pro 

<210> 3656

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3656

Met His Glu Pro Leu Cys Pro Ala Ser Cys Cys Phe Tyr Thr Phe Ser Ile Ala Ile Thr Val Phe Asp Gly Ser Phe Cys Phe Phe Glu Phe Leu lle Phe Ile Thr Pro Ala Ser Ser Ala Thr Leu Lys Asp Leu Glu Ser Ser Ser Arg Cys Glu Ala Val Leu Lys Arg Gln Leu Trp Gln Ser Ile Lys Ala Arg Ala Gln Leu Glu Ala His Val Thr Gln Met Leu Glu Gln Val Gln Leu Glu Thr Asp Glu Tyr Thr Gln His Leu Lys Gly Glu Arg Ala Arg Trp Gln Gln Arg Val Trp Lys Met Ser Glu Glu Val Cys Thr

100 105 110 Trp Lys Glu Glu Lys Lys His Asp Arg His Arg Val Gln Glu Leu Glu 120 125 Arg Ser Leu Ala Glu Leu Lys Asn 130 135 <210> 3657 <211> 122 <212> PRT <213> Homo sapiens <400> 3657 Met Leu Lys Val Ser lle Trp Ser Ala Phe Gly Pro Met Leu Asn Leu 10 15 Phe Asn Ser Ile Leu Tyr Arg Ser Asn Ile Val Pro Glu Ser Ala Glu 25 Ala Ala Arg Lys Glu Val Ser Ser Arg Thr Lys Leu His Ile Phe Leu 35 40 45 Gly Arg Ser Ala Ser Leu Leu Arg Pro Asn Gly His Ser Leu Ala Arg 55 Trp Leu Glu Thr Thr Val Leu Glu Arg Thr Gln Gly Lys Ile Ser Arg 70 75 Arg Asn Pro Asn Arg Lys Ile Tyr Phe Ile His Phe Leu Gln Lys Met 85 90 95 His Pro Ile Ile Ala Tyr Ser Pro Pro Thr Trp Thr Ala His Ser Val 100 105 110

<210> 3658

<211> 135

<212> PRT

<213> Homo sapiens

115

Asn His Val Leu Gln Val Arg Phe Gly Tyr

<400> 3658 Met Lys Pro His Ala Glu Gln Ile Gln Leu Leu Gly Lys Gln Gly Ala Ala Val Ser Gln Leu Cys Pro Leu Val Leu Val Ser Gly His Ile Cys Arg Glu Glu Arg Arg His Phe Gln Arg Ile Ala Leu Thr Ala Ser Ser Leu Ser Cys Gly Ser Gln Leu Lys Trp His Leu Leu Gln Glu Ala Phe Pro Asp Phe Leu Pro Phe Ser Val Leu Pro Val Ser Trp Thr Ala Arg Ala Thr Asp Val Leu Ala Leu Ser Val Asp Met Ala Cys Ser Leu Leu Pro His Trp Thr Gly His Ser Ala Arg Ala Lys Thr Val Phe Gly Pro Ser Leu Trp Leu Gln Leu Cys Leu Ala Gln Val Gln Ala Gln Tyr Gly Cys Ser Leu Met Phe Ala Glu <210> 3659 <211> 104 <212> PRT <213> Homo sapiens <400> 3659 Met Ser His Arg Ala Trp Leu lle Leu Ala Phe Phe Phe Ile Phe Tyr Tyr Phe Phe Lys Ile Glu Ser Cys Ser Val Ala Gln Ala Gly Val Gln Trp His Ser Leu Ser Ser Val Gln Pro Pro Pro Pro Arg Phe Lys Gln 

Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Asn Arg His Met Pro

 Pro Arg Leu
 Arg Leu
 11e
 Val
 Gly
 Gly
 Arg
 Ala
 Cys
 11e
 Ile
 Val
 Pro

 65
 70
 75
 80

 Leu
 His
 Ser
 Ser
 Leu
 Gly
 Asn
 Arg
 Ala
 Arg
 Leu
 Cys
 Leu
 Pro
 Asn
 Lys

 Ala
 Glu
 Lys
 Asp
 Tyr
 Leu
 Arg
 Glu

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<210> 3660

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3660

Met Ser Lys Lys His Gln Asn Asp Cys Thr Cys Asp Arg Ser Cys Lys

1 5 10 15

Asn Asn Ala Thr Lys Gly Phe Pro Thr Thr Ser Arg Met Gln Thr Arg 20 25 30

Lys Phe Gly Pro Lys Ala Leu Leu Phe Leu Tyr Val Arg Met Pro Asn 35 40 45

Ser Leu Ala Gly Lys Arg Pro Ile Met Gln lle Lys Tyr Thr Ser Asn 50 55 60

Phe Ser Pro Glu Lys Gln Leu Trp Leu Gln Val Leu Leu Lys Gln Ala 65 70 75 80

Leu Gln Gln Arg Cys Tyr Ser Leu Ala Leu Arg Arg Asn Lys Asn Ser 85 90 95

Pro Ser Glu Val Tyr Glu Arg Val Arg Asn Cys Glu

100 105

<210> 3661

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3661 Met Ser Pro Leu Pro Ser Thr Leu Pro Gln Gly Thr Ser Cys Pro Ala 1 5 10 Leu Pro Leu Leu Pro Gly Arg Pro Cys Ala Ala Ala Leu Phe Val 20 25 30 Arg His Pro Phe Pro Gly Val Pro Leu Ser Phe Pro Leu Thr Leu Leu 40 Ile Ala Leu Leu Ser Ser Pro Leu Tyr Ser Ser Pro His Ser Leu Ser 55 50 Ser His Pro Gln Pro Asp Leu Thr Ala Cys Lys Ser His Pro Gly Glu 70 75 Met Val Ser Leu Leu Leu Gly Gln Phe Pro Gly Gly Pro Glu Leu Pro 90 Gly Leu Val Asp Ser Gln Gln Arg Pro Gly Arg His Gly Glu Ser Lys 100 105 110 Thr Met Ala Ser Glu His Ser Ala Trp Pro Ala Pro Phe Leu Ser Cys 120 Leu Gly Ser Gln Thr Ala Gln Ala Ser Ala Phe Glu Leu Ala Ser Pro 130 135 140 Trp Asn Leu Val Cys Asn His Gly Ala Asn Cys Arg Thr Arg Gly Arg 150 155 Glu Gly Arg Gly Val Lys Ser Ile Glu Ser Val Leu Lys Glu Gly Gly 170 Asp Trp Thr Thr 180

<210> 3662

<211> 198

<212> PRT

<213> Homo sapiens

<400> 3662

Met Arg Ala Pro Ala Gln Val Arg Thr Leu Arg Trp Ser Leu Gly Trp

1 5 10 15

Pro Gly Ser Arg Gly Arg Asp Val Phe Ala Ala Leu Arg Cys Ala Gln

Ala	Leu	Arg	Cys	Gln	Pro	Leu	Gly	Ser	Ala	Leu	Pro	Pro	Gln	Ala	Pro
		35					40					45			
Thr	Arg	Asp	Leu	Gly	Arg	Pro	Gln	Ala	Phe	Asp	Ser	Ser	Arg	Thr	Pro
	50					55					60				
Gly	Pro	Arg	Pro	Pro	Arg	Ser	Thr	Leu	Arg	Met	Met	Glu	Thr	Lys	Ser
65					70					75					80
Pro	Thr	Ser	Pro	Ser	Tyr	Gly	Ala	Arg	Gly	Lys	Val	Pro	Pro	Gly	Ala
				85					90					95	
Gly	Pro	Gly	Ser	Pro	Leu	Ser	Arg	Gly	Ala	Gly	Gln	Gly	Ala	Pro	Leu
			100					105					110		
Ser	Glu	Thr	Arg	Phe	His	His	Va]	Ala	Gln	Ala	Phe	Leu	Lys	Leu	Leu
		115					120					125			
Ser	Ser	Ser	Asn	Pro	Pro	Thr	Ser	Ala	Ser	Glu	Ser	Λla	Arg	Пе	11e
	130					135					140				
Gly	Val	Ser	His	Cys	Thr	Gln	Pro	Gln	Val	Ala	Ser	Leu	Ser	Asp	Arg
145					150					155					160
His	Cys	Ser	Lys	Va]	Asn	His	Thr	Val	Leu	Ser	Pro	Arg	Lys	Gly	Val
				165					170					175	
Pro	Leu	Gln	Leu	Thr	Ala	Ala	His	Ser	Ser	Ser	Gln	Glu	Val	Leu	Ala
			180					185					190		
Thr	Va1	Pro	Phe	His	Gly										
		195													
	0> 36														
	1> 46														
	2> PI														
<213	3> Ho	omo s	sapie	ens											
<400	)> 36	563													

Met Lys Glu Pro Leu Leu Gly Gly Glu Cys Asp Lys Ala Val Ala Ser 1 5 10 15

Gl<br/>n Leu Gly Leu Leu Asp Glu Ile Lys Thr Glu Pro Asp As<br/>n Ala Gl<br/>n  $\,$ 

Glu Tyr Cys His Arg Gln Gln Ser Arg Thr Gln Glu Asn Glu Leu Lys

		35					40					45			
He	Asn	Ala	Val	Phe	Ser	Glu	Ser	Ala	Ser	Gln	Leu	Thr	Ala	Gly	lle
	50					55					60				
Gln	Leu	Ser	Leu	Ala	Ser	Ser	Gly	Val	Asn	Lys	Met	Leu	Pro	Ser	Val
65					70					75					80
Ser	Thr	Thr	Ala	Ile	Gln	Val	Ser	Cys	Ala	Gly	Cys	Lys	Lys	He	Leu
				85					90					95	
Gln	Lys	Gly	Gln	Thr	Ala	Tyr	Gln	Arg	Lys	Gly	Ser	Ala	Gln	Leu	Phe
			100					105					110		
Cys	Ser	He	Pro	Cys	Ile	Thr	Glu	Tyr	He	Ser	Ser	Ala	Ser	Ser	Pro
		115					120					125			
Val	Pro	Ser	Lys	Arg	Thr	Cys	Ser	Asn	Cys	Ser	Lys	Asp	He	Leu	Asn
	130					135					140				
	Lys	Asp	Val	He		Va]	Gln	Leu	Glu		Thr	Thr	Ser	Cys	Lys
145					150					155					160
Thr	Phe	Cys	Ser		Ser	Cys	Leu	Ser		Tyr	Glu	Glu	Lys	Arg	Lys
_				165					170				_	175	
Pro	Phe	Val		ile	Cys	Thr	Asn		He	Leu	Thr	Lys		Ser	Met
0	0.1		180		7.3	7.1	0.1	185	0.1	., .		<i>T</i>	190		., ,
Cys	GIn		lhr	Ala	He	He		lyr	Glu	Val	Lys		GIn	Asn	Val
,	11.	195	,	C	C		200	C	,	C	,	205	11.	C	4.1
Lys		ASII	Leu	Cys	ser		Ala	Cys	Leu	ser		rne	птѕ	Ser	Ala
Aan	210	Dho	11.	Mot	Aon	215 Cuc	Cuo	C1v	Aan	Cva	220	Than	Т.,,,,	Cua	Т
225	ASII	rne	116	wet	230	Cys	Cys	Gju	ASII	235	Gry	1111	1 9 1	Cys	240
	Ser	Ser	Ser	len		His	116	len	Gln		Glu	G1 v	Gln	Ser	
1 1 1 1 1	001	561	561	245	501	1113	110	LCG	250	MCC	Olu	01,	0111	255	1113
Tvr	Phe	Asn	Ser		Lvs	Ser	He	Thr		Tyr	Lvs	Gln	Lvs	Pro	Ala
- 3 -			260		, -			265					270		
Lys	Pro	Leu	He	Ser	Val	Pro	Cys	Lys	Pro	Leu	Lys	Pro	Ser	Asp	Glu
		275					280					285			
Met	Πe	Glu	Thr	Thr	Ser	Asp	Leu	Gly	Lys	Thr	Glu	Leu	Phe	Cys	Ser
	290					295					300				
He	Asn	Cys	Phe	Ser	Ala	Tyr	Ser	Lys	Ala	Lys	Met	Glu	Ser	Ser	Ser
305					310					315					320
Val	Ser	Val	Val	Sor	Val	Val	Hic	Aen	Thr	Sor	Thr	Glu	Lou	Lou	Sor

325 330 335 Pro Lys Lys Asp Thr Thr Pro Val Ile Ser Asn Ile Val Ser Leu Ala 345 Asp Thr Asp Val Ala Leu Pro Ile Met Asn Thr Asp Val Leu Gln Asp 355 360 365 Thr Val Ser Ser Val Thr Ala Thr Ala Asp Val Ile Val Asp Leu Ser 375 380 Lys Ser Ser Pro Ser Glu Pro Ser Asn Ala Val Ala Ser Ser Ser Thr 385 390 395 400 Glu Gln Pro Ser Val Ser Pro Ser Ser Ser Val Phe Ser Gln His Ala 405 410 lle Gly Ser Ser Thr Glu Val Gln Lys Asp Asn Met Lys Ser Met Lys 420 425 430 lle Ser Asp Glu Leu Cys His Pro Lys Cys Thr Ser Lys Val Gln Lys 435 440 445 Val Lys Gly Lys Ser Arg Ser Ile Lys Lys Ser Cys Cys 450 455 460

<210> 3664

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3664

Met Phe Thr Trp Pro Ile Ser Arg Pro Arg Val Pro Leu Thr Arg Gly

1 5 10 15

Phe Phe Phe Phe Leu Phe Leu Phe Phe Phe Phe Leu Gln Gly Gly Ile
20 25 30

Met Gly Leu Trp Phe Phe Ser Pro Pro Thr Gly Arg Gly Ser Val Tyr
35 40 45

Val Ala Cys Gly Asn Arg Ile Gly Gly Asn Glu Leu Arg Phe Pro Arg
50 55 60

Val Gly Lys Arg Glu Val Lys Ser Gly Ala Thr Pro Pro Val Leu Trp 65 70 75 80

Arg Asn Ser Pro Asn Thr Glu Lys Lys Gly Ala Val Gly Val Leu Leu

Cys Leu Gln Val Arg Val Val Ser Ala Thr Gly Ala Arg His <210> 3665 <211> 259 <212> PRT <213> Homo sapiens <400> 3665 Met Ala Ser Pro Gln Gly Gly Gln Ile Ala Ile Ala Met Arg Leu Arg Asn Gln Leu Gln Ser Val Tyr Lys Met Asp Pro Leu Arg Asn Glu Glu Glu Val Arg Val Lys Ile Lys Asp Leu Asn Glu His Ile Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Glu Lys Arg Ile Arg Glu Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val Thr Gln Pro Thr Gly Glu Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro Phe Ser Ser Phe Asp His Ser Lys Ala His Tyr Tyr Arg Tyr Asp Glu Gln Leu Asn Leu Cys Leu Glu Arg Leu 

Ser Ser Gly Lys Asp Lys Asn Lys Ser Val Leu Gln Asn Lys Tyr Val

Arg Cys Ser Val Arg Ala Glu Val Arg His Leu Arg Arg Val Leu Cys 195 200 205 His Arg Leu Met Leu Asn Pro Gln His Val Gln Leu Leu Phe Asp Asn 210 215 220 Glu Val Leu Pro Asp His Met Thr Met Lys Gln Ile Trp Leu Ser Arg 230 235 240 Trp Phe Gly Lys Pro Ser Pro Leu Leu Leu Gln Tyr Ser Val Lys Glu 245 250 255

Lys Arg Arg

<210> 3666

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3666

20 25 30

Ser Pro Thr Glu Trp Pro Arg Thr Ala Phe Phe Arg Glu Gln Glu Gly
35 40 45

Ala Ala Ser Leu Ser Ile Ala Trp Asp His Ile Gln Thr Gly Asp Val 50 55 60

Ala Arg Ser Lys Ser Thr Ser Val Gly Ile Leu Val Asp Pro Gly Asp
65 70 75 80

Pro Leu Leu Arg Glu Leu Leu Arg Gly Leu Gly Tyr Asp Ser Arg
85 90 95

Thr Lys Ser Phe Gly Arg Asp Phe Pro Ser Leu Asp Lys Glu Lys Glu
100 105 110

Val Glu Leu Pro Ala Ala Ala Leu Gly Gly

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<210> 3667
<211> 247
<212> PRT
<213> Homo sapiens
<400> 3667
Met Leu Cys Val Tyr Phe Phe Lys Gly Ile Glu Asp Asn Asp Glu Leu
                  5
  1
                                                          15
Pro Ser Ala Lys Gly Arg Lys Val Leu Arg Ser Leu Val Val Cys Glu
                                 25
Asn Gly Leu Pro 11e Lys Glu Gly Leu Ser Cys Asn Gly Pro Arg Pro
                             40
                                                  45
Val Gly Leu Arg Ser Thr Leu Gln Gly Arg Gly Glu Met Val Glu Gln
     50
                         55
                                              60
Leu Arg Glu Leu Thr Arg Leu Leu Glu Ala Lys Asp Phe Arg Ser Arg
                     70
                                          75
Met Glu Gly Val Gly Gln Leu Leu Glu Leu Cys Lys Ala Lys Thr Glu
                 85
                                      90
Leu Val Thr Ala His Leu Val Gln Val Phe Asp Ala Phe Thr Pro Arg
            100
                                 105
Leu Gln Asp Ser Asn Lys Lys Val Asn Gln Trp Ala Leu Glu Ser Phe
                            120
                                                 125
Ala Lys Met 11e Pro Leu Leu Arg Glu Ser Leu His Pro Met Leu Leu
    130
                        135
                                             140
Ser lle lle lle Thr Val Ala Asp Asn Leu Asn Ser Lys Asn Ser Gly
                    150
                                         155
lle Tyr Ala Ala Ala Val Ala Val Leu Asp Ala Met Val Glu Ser Leu
                165
                                     170
                                                         175
Asp Asn Leu Cys Leu Leu Pro Ala Leu Ala Gly Arg Val Arg Phe Leu
            180
                                 185
                                                     190
Ser Gly Arg Ala Val Leu Asp Val Thr Asp Arg Leu Ala Gly Glu His
                            200
                                                 205
Pro Gln Pro His Pro Thr Pro Ser Pro Gly Arg Phe Leu Phe Ser Pro
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Gly Leu Trp Leu Asn His Ser Pro Ser Tyr Leu Arg Pro Glu Ile Ile

225 230 235 240

Pro Pro Asn His Leu Lys Phe
245

<210> 3668

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3668

Met Arg Arg Asp Arg Gly Pro Lys Pro Ala Leu Gly Gly Ala Gly Glu
1 5 10 15

Val Glu Pro Gly Gly Met Ala Ala Ser Pro Thr Gly Arg Pro Arg Arg
20 25 30

Leu Gln Arg Tyr Leu Gln Ser Gly Glu Phe Asp Gln Phe Arg Asp Phe
35 40 45

Pro Ile Phe Glu Ser Asn Phe Val Gln Val Thr Arg Leu Gly Glu Val
50 55 60

Ala Asn Glu Val Thr Met Gly Val Ala Ala Ser Ser Pro Ala Leu Glu 65 70 75 80

Leu Pro Asp Leu Leu Leu Leu Ala Gly Pro Ala Lys Glu Asn Gly His
85 90 95

Leu Gln Leu Phe Gly Leu Phe Pro Leu Lys Phe Val Gln Leu Phe Val
100 105 110

His Asp Lys Ser Arg Cys Gln Leu Glu Val Lys Leu Asn Thr Ser Arg 115 120 125

Thr Phe Tyr Leu Gln Leu Arg Ala Pro Leu Lys Thr Arg Asp Arg Glu 130 135 140

Phe Gly Gln Trp Val Arg Leu Leu Tyr Arg Leu Arg Phe Leu Ser Ala 145 150 155 160

Ser Ala Val Pro Phe Thr Gln Glu

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<211> 185
<212> PRT
<213> Homo sapiens
<400> 3669
Met Pro Val Cys Ser Ala Met Gly Arg Ile Leu Trp Met Lys Ala Lys
                                     10
Gly Ser Ala Asn Ser Ser Gln Leu Gly Ser Lys Thr Gly His Ser Gly
             20
                                 25
Gly Gly Arg Asn Ser Pro Ser Gly Pro Gly Pro Pro Arg Gly Ser Ala
Gly Arg Gly Pro Gly Cys Ser Val Val Ala Ala Ser Ile Thr Ala Gly
                         55
                                              60
Trp Ala Arg Ala Arg Arg Arg Trp Ala Pro Gly Pro Arg Leu Arg Ala
65
                     70
                                          75
                                                              80
Pro Leu Gly Pro Arg Pro Val Gln Thr Arg Leu Glu Gln Gln Val
                 85
                                     90
Arg Val Val Arg Ala Thr Ala Ala Pro Trp Ala Phe Ser Ala Ser Asp
            100
                                105
                                                     110
Asp Asp Val Ser Pro Gln Ala His Ala Val Arg Leu Arg Arg His Gly
                            120
Glu Glu Lys Glu Ser His Pro Thr Pro Ile Asp Pro Pro Ser Ala Arg
                        135
                                             140
Gly Ser Pro Pro Arg Pro Arg lle Gly Arg Gly Arg Ala Phe Arg Cys
                                         155
                                                             160
145
                    150
Gly Trp Ser Leu Ser Leu Gly Phe Gln Leu Ser Gln Leu Leu Leu Thr
                                    170
                165
                                                         175
lle Tyr Tyr Val Ser Glu Phe Leu Pro
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<210> 3670

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3670 Met Asn Glu Trp Gln Ser Trp Gly Leu Asn Leu Asp Leu Phe Asp Ser 10 15 lle Leu Leu Arg Thr Gln Leu His Glu Leu Cys Leu Ile Lys Ile Phe 20 25 30 Gly Ala Phe Phe Phe Phe Ala Thr Lys Ser His Ser Val Thr Gln Ala 40 Gly Gly Ala Val Leu Ala His Cys Asn Leu Arg Leu Pro Gly Ser Ser 50 55 Asn Ser Pro Ala Ser Ala Ser Arg Val Ala Gly Ile Thr Gly Thr His 70. 75 His His Ala Trp Leu Ile Phe Val Phe Leu Val Glu Ala Gly Phe His 85 90 His Val Gly Glu Ala Ser Leu Glu Leu Leu Thr Ser Ser Asp Pro Pro 100 105 110 Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser His His Thr 120 125 Trp Pro Phe Ser Val Ile Leu Thr Asn Thr 130 135 <210> 3671 <211> 186 <212> PRT <213> Homo sapiens <400> 3671 Met Met Trp Asp Phe Lys Lys Tyr Tyr Val Ser Asn Phe Ser Lys Gln 1 10 Leu Leu Asp Ser Ile Trp His Gln Pro Ile Phe Asn Leu Leu Ser Ile 20 25 30

Gly Gln Ser Leu Tyr Ala Lys Ala Lys Glu Leu Asp Arg Val Lys Glu 40

lle Gln Glu Gln Leu Phe His lle Lys Lys Leu Leu Lys Thr Cys Arg

Phe Ala Asn Ser Ala Leu Lys Glu Phe Glu Gln Val Pro Gly His Leu

55

50

45

Thr Asp Glu Leu His Leu Phe Ser Leu Glu Asp Leu Val Arg Ile Lys Lys Gly Leu Leu Ala Pro Leu Leu Lys Asp lle Leu Lys Ala Ser Leu Ala His Val Ala Gly Cys Glu Leu Cys Gln Gly Lys Gly Phe Ile Cys Glu Phe Cys Gln Asn Thr Thr Val Ile Phe Pro Phe Gln Thr Ala Thr Cys Arg Arg Cys Ser Ala Cys Arg Ala Cys Phe His Lys Gln Cys Phe Gln Ser Ser Glu Cys Pro Arg Cys Ala Arg Ile Thr Ala Arg Arg Lys Leu Leu Glu Ser Val Ala Ser Ala Ala Thr 

<210> 3672

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3672

Met Lys Val Ala Leu Leu Arg Phe Phe Ser Pro Pro Asn Met Ser Val Thr His Lys Glu Ala His Glu Arg Lys Cys Pro Glu Lys Pro Glu Leu Trp Lys Ala Gly Ser Thr Val Pro Leu Thr Ala Pro Glu Lys Thr Asp Pro Phe Pro Leu Cys Pro Pro Leu Ser Leu Thr Cys Pro Gln Gln Gln Ser Cys 11e Pro Ser Ser Ser Gln Asp Val Leu Asn Ser Leu Trp Val Ser Ser His Cys Leu Gln Leu Lys IIe Ser Lys Thr Lys Thr His Cys

Leu Pro Thr Gln Asn Val Leu Pro Phe Leu Leu Pro Thr Pro Val Ser

100 105 110

Ile Val Cys Arg Leu Pro Gly Leu Asp Pro 115 120

<210> 3673

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3673

Met Pro Val Ile Ala Ala Val Gly His Val Val Leu Trp Trp Met Pro

5 10 19

Val Ile Ala Thr Val Gly Cys Val Val Leu Trp Trp Met Leu Val Ile 20 25 30

Ala Ala Val Gly Arg Val Val Leu Trp Trp Met Pro Val Ile Ala Ala
35 40 45

Val Gly Cys Val Val Leu Trp Trp Met Leu Val Ile Ala Thr Val Gly
50 55 60

Arg Val Val Leu Trp Trp Met Pro Val Ile Ala Ala Val Gly His Val 65 70 75 80

Val Leu Trp Trp Val Leu Ile Gln Phe Arg Thr His Val Ala Leu Gly 85 90 95

Cys Leu Gly Pro Gln His Thr Gly Lys Leu lle lle Thr Gly Val Ala 100 105 110

Cys Ser Leu Ser Thr Ala His Pro Gln Leu 115 120

<210> 3674

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3674

Met Gly Lys Val Arg Thr Ala Cys Pro Ala Gly Gly Trp Gly Cys Ser

Cys His Gln His Trp Ala Leu Ser Leu Gly Leu Arg Leu Ser Asp Arg Thr Gly Ser Gln Gln Thr Asp Arg Trp Met Pro Gln Ala Leu His Leu Val Pro Gly Ala Leu Leu Leu Pro His Pro Val Pro His Leu Glu Leu Cys lle Pro Glu Ala Val Thr Ala Gly Asp Gly Cys Leu Thr Cys Gln Pro Met Gly Trp Ala Gly Ile Leu Glu Thr Ser Pro Ile Pro Asp Ile Pro Leu Trp Ala Arg Gly Met Gly Val Asp Ser Gly <210> 3675 <211> 120 <212> PRT <213> Homo sapiens <400> 3675 Met Ala Gly Ala Ala Arg Trp Val Gly Gln Glu Ser Ser Ala Met Val Cys Phe Gly Cys Pro Gly Gly Ala Ser Ser Arg Cys Arg Ser Pro Arg Gly Arg Gln Ala Ser Arg Val Pro Arg Leu Glu Asn Gly Ala Gln Arg Val Val Arg Thr Met Val His Leu Val Leu Gln Pro Lys Arg Val Thr Leu Val His Pro Pro Arg Gly Leu Glu Pro Val Cys Thr Pro Ile Ala Arg Met Arg Pro Lys Ser His Gly Leu Arg Ser Ser Leu Pro Leu Ala Met Ile Pro Gln Pro Ala Thr Arg Val Ser Arg Pro Gln Ala Leu Trp

Lys Arg Leu Tyr Val Ala Cys Thr

<210> 3676

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3676

Met Thr Lys Asp Pro Pro Arg Val Thr Gln Pro Gly Pro Leu Val Arg

1 5 10 15

Gly Pro Glu Cys Leu Gln Cys Pro Cys lle Glu Ala Leu Asn Lys Ala 20 25 30

Arg Ser Arg Cys Arg Gly Pro Leu Trp Ile Pro Pro Glu His Leu Pro
35 40 45

Arg Ile Met Ala Pro Lys Thr Glu Gly Lys Glu Thr Ala Gln Phe Ala 50 55 60

Lys Arg Gln Asp Leu Ser Thr Arg Val Ala Leu Trp Arg Leu Arg Lys
65 70 75 80

Met Phe Ala Cys Gln Tyr Leu Leu Ser Phe Pro Pro Val Pro Thr Lys 85 90 95

Arg Gly His Lys Ser Ser Ala Trp His Trp Arg Val Ser Glu Gly Pro 100 105 110

Glu Ser Cys Val Ser His Gly Val Leu 115 120

<210> 3677

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3677

Met Arg Lys Pro Arg Pro Arg Lys Val Lys Tyr Leu Ala Gln Gly His

1 5 10 15

Thr Ala Ser Lys Glu Gly Ala Gly Leu Asp Ser Asn Ala Ser Leu Pro

			20					25					30		
Leu	Cys	Ser	Val	Cys	Gly	Gln	Pro	Ala	Pro	Phe	His	He	Cys	Cys	Leu
		35					40					45			
Pro	Gly	Phe	Leu	Pro	Glu	Ala	Pro	lle	Ala	Leu	Arg	Gly	Val	GIn	Ala
	50					55					60				
Asp	Pro	Pro	Val	Leu	Leu	Leu	Gly	Pro	G1 y	Glu	Leu	Glu	Lys	Pro	Gly
65					70					75					80
Gly	Gln	Val	Trp	Val	Gly	Ser	Pro	Leu	Pro	Ser	Ser	Arg	Ala	Cys	Pro
				85					90					95	
Pro	Pro	Ala	Cys	Ser	Pro	Leu	Leu	Asn	Pro	Met	Pro	Thr	Phe	Cys	Lys
			100					105					110		
Leu	Trp	Leu	Arg	Lys	Ser	Ser	Ser	Ala	Trp	Leu	Cys	Thr	Glu	Val	Ser
		115					120					125			
Ser	Ala	Trp	Asn	His	Val	Gln	Met	Arg	Cys	Ala	Cys	Ala	His	Val	Glu
	130					135					140				
Trp	Cys	Ser	Lys	Asn	Leu	Tyr	Ser	Ala	Ser	Trp	Lys	Arg	Ser	His	Ser
145					150					155					160
Arg	Arg	Pro	Ala		Ala	Ala	Arg	Ala		Glu	Arg	Arg	Pro	Gly	Arg
				165					170					175	
Gly	Cys	Thr		Gly	Pro	Gly	Gly		Arg	Gly	Arg	Ala	Gly	Ala	Glu
			180					185					190		
Pro	Gly		Ser	Arg	Arg	Λla		Arg	His	Thr	Gly		Arg	GIn	Ala
D	0	195		Б	6.1	13	200		. 1	0	Б	205			,
Pro		GIn	Ala	Pro	Gly		Arg	Leu	Ala	Ser		Pro	Arg	Arg	Lys
C1	210	C1 .	1	т.	,	215 D	15	C	C.1	D	220 TI	Б	C		131
	ınr	ыу	Leu	ırp	Leu	Pro	Pro	Ser	Glu			Pro	Ser	Leu	
225	A 20.00	Duc	C1	1	230	T1.	Duc	C	T1.	235		Δ	D	1	240
ser	АГВ	PFO	GIU		Leu	11e	Pro	ser		ser	rne	Arg	Pro		61 y
The	Tur	Pro	Λησ	245 Val	Asp	Ala	Lou	Sor	250	Alo	Mod	Clu	Son	255	Mot
1111	1 9 1	110	260	vai	лър	Ма	Leu	265	1115	ліа	Me t	оту	270	Oly	MG t
G1 v	Trn	G1v		l eu	Thr	Lou	Ara		Val	Val	Glv	Lou		Hic	Val
01)	ııρ	275	. (1)	, cu	1 1 1 1 1	r, cu	280	nia	, a 1	, 01	01 y	285	UUU	1119	1.13 (
Arg	Thr	2.0					200					200			
8	290														

<210> 3678 <211> 117 <212> PRT <213> Homo sapiens <400> 3678 Met Val Gly Pro Ser His Leu Gly Asn Ser Ser Leu Met Gln Ser Val 10 Thr Gln Gln Trp Cys Leu Gly Ala Ser Ala Cys Ile Gly Ala Gly Leu 20 25 Val Pro Lys Pro Arg Pro Pro Pro Cys Gly Ser Thr Thr Gly Lys Gly 40 45 Asn Asn Gln Thr Ser Ser Ser Val Val Met Arg lle Gln Glu Asp His 50 55 60 Val Asn Ile Gly Ile His Asn Gly Gln Thr Leu Trp Arg Met Pro Val 70 75 Ile Pro Ala Ile Trp Glu Ala Glu Val Gly Arg Trp Arg Glu Pro Gln 90 Asn Leu Lys Pro Ala Trp Ala Thr Trp Gln Asn Gln Ser Leu Leu Lys 100 105 Ile Gln Lys Ile Gly 115 <210> 3679 <211> 342 <212> PRT <213> Homo sapiens

Met Leu Pro Leu Glu Pro Cys Arg Arg Pro Asn Phe Glu Leu 11e Pro l 5 10 15

Leu Leu Asn Ser Val Asp Ser Asp Asn Cys Gly Ser Met Val Pro Ser 20 25 30

<400> 3679

Phe Ala Asp Ile Leu Tyr Val Ala Asn Asp Glu Glu Ala Ser Tyr Leu

		35					40					45			
Arg	Phe	Arg	Asn	Ser	Ile	Trp	Lys	Asn	Glu	Glu	Glu	Lys	Val	Glu	He
	50					55					60				
Phe	His	Pro	Leu	Arg	Leu	Val	Arg	Asp	Pro	Leu	Ser	Pro	Ala	Val	Arg
65					70					75					80
Gln	Lys	Glu	Thr	Val	Lys	Asn	Asp	Leu	Pro	Val	Asn	Glu	Ala	Ala	He
				85					90					95	
Arg	Lys	Ile	Ala	Ala	Leu	Glu	Asn	Glu	Leu	Thr	Phe	Leu	Arg	Ser	Gln
			100					105					110		
Ile	Ala	Ala	Ile	Val	Glu	Met	Gln	Glu	Leu	Lys	Asn	Ser	Thr	Asn	Ser
		115					120					125			
Ser	Ser	Phe	G1 y	Leu	Ser	Asp	Glu	Arg	He	Ser	Leu	Gly	Gln	Leu	Ser
	130					135					140				
Ser	Ser	Arg	Ala	Ala	His	Leu	Ser	Val	Asp	Pro	Asp	Gln	Leu	Pro	Gly
145					150					155					160
Ser	Val	Leu	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro	Gln	Phe	Ser
				165					170					175	
Ser	Leu	Gln	Pro	Pro	Cys	Phe	Pro	Pro	Val	Gln	Pro	Gly	Ser	Asn	Asn
			180					185					190		
	Cys	Asp	180			Pro	Ala		Glu	Met	Ser	Lys		Asn	Pro
	Cys	Asp 195	180			Pro	Ala 200		Glu	Met	Ser	Lys 205		Asn	Pro
Ile		195	180 Ser	Asp	Asn	Pro Tyr	200	Thr				205	Gln		
Ile		195	180 Ser	Asp	Asn		200	Thr				205	Gln		
Ile Ala	Ala 210	195 Asn	180 Ser Lys	Asp Thr	Asn Asn	Tyr	200 Ser	Thr His	His	Ser	Lys 220	205 Ser	Gln Gln	Arg	Asn
Ile Ala	Ala 210	195 Asn	180 Ser Lys	Asp Thr	Asn Asn	Tyr 215	200 Ser	Thr His	His	Ser	Lys 220	205 Ser	Gln Gln	Arg	Asn
Ile Ala Lys 225	Ala 210 Asp	195 Asn Ile	180 Ser Lys Pro	Asp Thr Asn	Asn Asn Met 230	Tyr 215	200 Ser Asp	Thr His Val	His Leu	Ser Lys 235	Lys 220 Asp	205 Ser Met	Gln Gln Asn	Arg Lys	Asn Val 240
Ile Ala Lys 225	Ala 210 Asp	195 Asn Ile	180 Ser Lys Pro	Asp Thr Asn	Asn Asn Met 230 Glu	Tyr 215 Leu	200 Ser Asp	Thr His Val	His Leu	Ser Lys 235	Lys 220 Asp	205 Ser Met	Gln Gln Asn	Arg Lys	Asn Val 240
Ile Ala Lys 225 Lys	Ala 210 Asp Leu	195 Asn Ile Arg	180 Ser Lys Pro	Asp Thr Asn Ile 245	Asn Asn Met 230 Glu	Tyr 215 Leu	200 Ser Asp Ser	Thr His Val Pro	His Leu Gly 250	Ser Lys 235 Gly	Lys 220 Asp Arg	205 Ser Met	Gln Gln Asn Ile	Arg Lys His 255	Asn Val 240 Lys
Ile Ala Lys 225 Lys	Ala 210 Asp Leu	195 Asn Ile Arg	180 Ser Lys Pro	Asp Thr Asn Ile 245	Asn Asn Met 230 Glu	Tyr 215 Leu Arg	200 Ser Asp Ser	Thr His Val Pro	His Leu Gly 250	Ser Lys 235 Gly	Lys 220 Asp Arg	205 Ser Met Pro	Gln Gln Asn Ile	Arg Lys His 255	Asn Val 240 Lys
Ile Ala Lys 225 Lys	Ala 210 Asp Leu Lys	195 Asn Ile Arg	180 Ser Lys Pro Ala Gln 260	Asp Thr Asn Ile 245 Asn	Asn  Met 230 Glu  Ser	Tyr 215 Leu Arg	200 Ser Asp Ser Trp	Thr His Val Pro Asp 265	His Leu Gly 250 Pro	Ser Lys 235 Gly Val	Lys 220 Asp Arg Ser	205 Ser Met Pro	Gln Gln Asn lle lle 270	Arg Lys His 255 Ser	Asn Val 240 Lys His
Ile Ala Lys 225 Lys	Ala 210 Asp Leu Lys	195 Asn Ile Arg	180 Ser Lys Pro Ala Gln 260	Asp Thr Asn Ile 245 Asn	Asn  Met 230 Glu  Ser	Tyr 215 Leu Arg His	200 Ser Asp Ser Trp	Thr His Val Pro Asp 265	His Leu Gly 250 Pro	Ser Lys 235 Gly Val	Lys 220 Asp Arg Ser	205 Ser Met Pro	Gln Gln Asn lle lle 270	Arg Lys His 255 Ser	Asn Val 240 Lys His
Ile Ala Lys 225 Lys Arg	Ala 210 Asp Leu Lys	195 Asn Ile Arg Arg Lys 275	180 Ser Lys Pro Ala Gln 260 Gln	Asp Thr Asn Ile 245 Asn Lys	Asn  Met 230 Glu  Ser Phe	Tyr 215 Leu Arg His	200 Ser Asp Ser Trp Phe 280	Thr His Val Pro Asp 265 Gln	His Leu Gly 250 Pro	Ser Lys 235 Gly Val Asp	Lys 220 Asp Arg Ser	205 Ser Met Pro Leu Ser 285	Gln Gln Asn Ile Ile 270 Phe	Arg Lys His 255 Ser Glu	Asn Val 240 Lys His
Ile Ala Lys 225 Lys Arg Ala Glu	Ala 210 Asp Leu Lys Leu Asn 290	195 Asn Ile Arg Arg Lys 275 Arg	180 Ser Lys Pro Ala Gln 260 Gln	Asp Thr Asn Ile 245 Asn Lys Trp	Asn  Met 230 Glu  Ser Phe Glu	Tyr 215 Leu Arg His Ala Ser 295	200 Ser Asp Ser Trp Phe 280 Ser	Thr His Val Pro Asp 265 Gln Pro	His Leu Gly 250 Pro Glu Phe	Ser Lys 235 Gly Val Asp	Lys 220 Asp Arg Ser Asp	205 Ser Met Pro Leu Ser 285 Pro	Gln Gln Asn Ile Ile 270 Phe Glu	Arg Lys His 255 Ser Glu	Asn Val 240 Lys His Lys
Ile Ala Lys 225 Lys Arg Ala Glu	Ala 210 Asp Leu Lys Leu Asn 290	195 Asn Ile Arg Arg Lys 275 Arg	180 Ser Lys Pro Ala Gln 260 Gln	Asp Thr Asn Ile 245 Asn Lys Trp	Asn  Met 230 Glu  Ser Phe Glu	Tyr 215 Leu Arg His Ala	200 Ser Asp Ser Trp Phe 280 Ser	Thr His Val Pro Asp 265 Gln Pro	His Leu Gly 250 Pro Glu Phe	Ser Lys 235 Gly Val Asp Ser Gly	Lys 220 Asp Arg Ser Asp	205 Ser Met Pro Leu Ser 285 Pro	Gln Gln Asn Ile Ile 270 Phe Glu	Arg Lys His 255 Ser Glu	Asn Val 240 Lys His Lys
Ile Ala Lys 225 Lys Arg Ala Glu Arg 305	Ala 210 Asp Leu Lys Leu Asn 290 Phe	195 Asn Ile Arg Arg Lys 275 Arg	180 Ser Lys Pro Ala Gln 260 Gln Ser	Asp Thr Asn Ile 245 Asn Lys Trp His	Asn  Met 230 Glu  Ser  Phe Glu  Ile 310	Tyr 215 Leu Arg His Ala Ser 295	200 Ser Asp Ser Trp Phe 280 Ser Gln	Thr His Val Pro Asp 265 Gln Pro	His Leu Gly 250 Pro Glu Phe Glu	Ser Lys 235 Gly Val Asp Ser Gly 315	Lys 220 Asp Arg Ser Asp Ser 300 Gln	205 Ser Met Pro Leu Ser 285 Pro	Gln Gln Asn Ile Ile 270 Phe Glu Thr	Arg Lys His 255 Ser Glu Thr	Asn Val 240 Lys His Ser Glu 320

Leu Leu Asn Ser Arg Ile <210> 3680 <211> 247 <212> PRT <213> Homo sapiens <400> 3680 Met Gly Gln Gly Leu Pro Asp Glu Glu Gln Glu Lys Leu Leu Arg 11e Cys Ser Ile Tyr Thr Gln Ser Gly Glu Asn Ser Leu Val Gln Glu Gly Ser Glu Ala Ser Pro Ile Gly Lys Ser Pro Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser Phe Gly Ser Glu Ala Lys Ala Gln Gln Glu Glu Gln Gly Ser Val Asn Asp Val Lys Glu Glu Glu Lys Glu Glu Lys Glu Val Leu Pro Asp Gln Val Glu Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu Glu Asp Glu Asp Glu Asp Asp Glu Glu Glu Asp Arg Met Glu Val Gly Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg Leu Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val Ser Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro Gly Gln Thr Glu Asp Pro Ala 

Glu Leu Met Leu Glu Asn Tyr Asp Thr Met Tyr Leu Leu Asp Gln Pro

Val Leu Glu Gln Arg Leu Glu Pro Ser Thr Cys Lys Thr Asp Thr Leu

Gly Leu Ser Cys Gly Val Gly Ser Gly Asn Cys Ser Asn Ser Ser Ser Ser Asn Phe Glu Gly Leu Leu Trp Ser Gln Gly Gln Leu His Gly Leu Lys Thr Gly Leu Gln Leu Phe <210> 3681 <211> 413 <212> PRT <213> Homo sapiens <400> 3681 Met Gly Ser Ser Gln Ser Val Glu Ile Pro Gly Gly Gly Thr Glu Gly Tyr His Val Leu Arg Val Gln Glu Asn Ser Pro Gly His Arg Ala Gly Leu Glu Pro Phe Phe Asp Phe Ile Val Ser Ile Asn Gly Ser Arg Leu Asn Lys Asp Asn Asp Thr Leu Lys Asp Leu Leu Lys Ala Asn Val Glu Lys Pro Val Lys Met Leu Ile Tyr Ser Ser Lys Thr Leu Glu Leu Arg Glu Thr Ser Val Thr Pro Ser Asn Leu Trp Gly Gly Gln Gly Leu Leu Gly Val Ser Ile Arg Phe Cys Ser Phe Asp Gly Ala Asn Glu Asn Val Trp His Val Leu Glu Val Glu Ser Asn Ser Pro Ala Ala Leu Ala Gly Leu Arg Pro His Ser Asp Tyr Ile Ile Gly Ala Asp Thr Val Met Asn Glu Ser Glu Asp Leu Phe Ser Leu lle Glu Thr His Glu Ala Lys Pro 

Leu Lys Leu Tyr Val Tyr Asn Thr Asp Thr Asp Asn Cys Arg Glu Val

				165					170					175	
He	lle	Thr	Pro	Asn	Ser	Ala	Trp	Gly	Gly	Glu	G1 y	Ser	Leu	Gly	Cys
			180					185					190		
Gly	lle	Gly	Tyr	Gly	Tyr	Leu	His	Arg	He	Pro	Thr	Arg	Pro	Phe	Glu
		195					200					205			
Glu	Gly	Lys	Lys	Ile	Ser	Leu	Pro	Gly	Gln	Met	Ala	Gly	Thr	Pro	Пe
	210					215					220				
Thr	Pro	Leu	Lys	Asp	Gly	Phe	Thr	Glu	Val	Gln	Leu	Ser	Ser	Val	Asn
225					230					235					240
Pro	Pro	Ser	Leu	Ser	Pro	Pro	Gly	Thr	Thr	Gly	11e	Glu	Gln	Ser	Leu
				245					250					255	
Thr	Gly	Leu	Ser	11e	Ser	Ser	Thr	Pro	Pro	Ala	Val	Ser	Ser	Val	Leu
			260					265					270		
Ser	Thr	Gly	Val	Pro	Thr	Val	Pro	Leu	Leu	Pro	Pro	Gln	Val	Asn	Gln
		275					280					285			
Ser	Leu	Thr	Ser	Val	Pro	Pro	Met	Asn	Pro	Ala	Thr	Thr	Leu	Pro	Gly
	290					295					300				
Leu	Met	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Asn	Leu	Pro	Asn	Leu	Asn	Leu
305					310					315					320
Asn	Leu	Pro	Ala	Pro	His	He	Met	Pro	Gly	Val	Gly	Leu	Pro	G1u	Leu
				325					330					335	
Val	Asn	Pro	Gly	Leu	Pro	Pro	Leu	Pro	Ser	Met	Pro	Pro	Arg	Asn	Leu
			340					345					350		
Pro	Gly	He	Ala	Pro	Leu	Pro	Leu	Pro	Ser	Glu	Phe	Leu	Pro	Ser	Phe
		355					360					365			
Pro	Leu	Val	Pro	Glu	Ser	Ser	Ser	Ala	Ala	Ser	Ser	Gly	Glu	Leu	Leu
	370					375					380				
Ser	Ser	Leu	Pro	Pro	Thr	Ser	Asn	Ala	Pro	Ser	Asp	Pro	Ala	Thr	Thr
385					390					395					400
Thr	Ala	Lys	Ala	Asp	Ala	Ala	Ser	Ser	Ser	Leu	Trp	Met			
				405					410						

<210> 3682

<211> 425

<212	2> PI	₹T													
<213	3> Ho	omo s	sapi	ens											
<400	)> 36	682													
Met	Arg	Ser	Leu	Asp	Phe	Gly	Met	Arg	Thr	Gln	Val	Thr	Arg	Glu	Ala
1				5					10					15	
Ile	Ser	Arg	Leu	Cys	Glu	Ala	Val	Pro	Gly	Ala	Asn	Gly	Ala	He	Lys
			20					25					30		
Lys	Arg	Lys	Pro	Pro	Val	Lys	Phe	Leu	Ser	Thr	Val	Leu	Gly	Lys	Ser
		35					40					45			
Asn	Leu	Gln	Phe	Ser	Gly	Met	Asn	lle	Lys	Leu	Thr	Ile	Ser	Thr	Cys
	50					55					60				
	Leu	Thr	Leu	Met		Leu	Asp	Asn	Gln		Ile	Ile	Ala	Asn	His
65		0.1		7.7	70	DI		0	0.1	75					80
HIS	Met	GIn	Ser		Ser	Phe	Ala	Ser		Gly	Asp	Pro	Asp		Thr
Aan	Т	V o 1	110	85 T	Val	<b>11</b> 0	Lua	A = 10	90 Pro-	V = 1	A	C1	A	95	C
vsh	1 9 1	vai	100	1 ) 1	vai	Ala	Lys	105	110	vaı	ASII	GIII	110	на	Cys
His	He	Leu		Cvs	His	Asn	G1 v		Ala	Gln	Asn	Val		Ser	Thr
1113	110	115	014	CyS	nis	ASII	120	MC C	MIG	OIII	Лэр	125	110	561	1111
He	Gly		Ala	Phe	Glu	Leu		Phe	Lvs	Gln	Tvr		Lvs	Asn	Pro
	130					135	Ü		3		140		_, _		
Ser	Leu	Asn	Thr	Ser	Cys	Glu	Ser	Glu	Glu	Val		Ile	Asp	Ser	His
145					150					155					160
Ala	Glu	Glu	Arg	Glu	Asp	His	Glu	Tyr	Tyr	Asn	Glu	lle	Pro	Gly	Lys
				165					170					175	
Gln	Pro	Pro	Val	Gly	Gly	Val	Ser	Asp	Met	Arg	He	Lys	Val	Gln	Ala
			180					185					190		
Thr	Glu	Gln	Met	Ala	Tyr	Cys	Pro	lle	Gln	Cys	Glu	Lys	Leu	Cys	Tyr
		195					200					205			
Leu	Pro	Gly	Asn	Ser	Lys	Cys	Ser	Ser	Val	Tyr	Glu	Asn	Cys	Leu	G1u
	210					215					220				
	Ser	Arg	Ala	He		Asn	Va]	His	Pro		Gly	Val	Gln	Ser	
225	Λ.	TI.	C	,	230	Lyc		TI	C	235	17 7			131	240
ara	ACD	ınr	SOF	1 011	1 011	IVC	147 C	inr	IVC	A TO CT	Val	acr	1 011	Mno	acn

Asp Pro Cys Tyr Ile Asn Thr Gln Ala Leu Gln Ser Thr Pro Gly Ser Ala Gly Asn Gln Arg Ser Ala Gln Pro Leu Gly Ser Pro Trp His Cys Gly Lys Ala Pro Glu Thr Val Gln Pro Gly Ala Thr Ala Gln Pro Ala Ser Ser His Ser Leu Pro His Ile Lys Gln Gln Leu Trp Ser Glu Glu Cys Tyr His Gly Lys Leu Ser Arg Lys Ala Ala Glu Ser Leu Leu Val Lys Asp Gly Asp Phe Leu Val Arg Glu Ser Ala Thr Ser Pro Gly Gln Tyr Val Leu Ser Gly Leu Gln Gly Gly Gln Ala Lys His Leu Leu Leu Val Asp Pro Glu Gly Lys Val Arg Thr Lys Asp His Val Phe Asp Asn Val Gly His Leu Ile Arg Tyr His Met Asp Asn Ser Leu Pro Ile Ile Ser Ser Gly Ser Glu Val Ser Leu Lys Gln Pro Val Arg Lys Asp Asn Asn Pro Ala Leu Leu His Ser Asn Lys 

<210> 3683

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3683

Met Asp Gly Leu Lys Val Gly His Asp Pro Ala Lys Glu Phe Thr Asn l = 1 Ser Trp Asn Glu Leu Phe Asn Leu Phe Asn Lys Thr Ala Ala Asn Leu Val Val = 20 Ser Leu Ser Lys Glu Thr = 35 Ser Lys Glu Thr = 35 Ser Lys Ser

Thr Arg Tyr Asn His Pro Lys Pro Asn Leu Leu Tyr Gln Lys Phe Val 55 Lys Val Leu Glu Ala Val Gly Asn Arg Val His Pro Phe Ser Leu Pro 70 75 80 Trp Phe Pro Trp Gly Leu Asn Ser Cys Leu Val Cys Leu lle Asn Ser 85 90 Gln Asn Phe Pro Asn Ile Val Gly Ser Cys Asp Gln Pro Cys Cys Cys 100 105 110 Leu Leu Arg Leu Pro Arg Pro Ser Ala Gly Ile Glu Ile Phe Arg Phe 120 125 115 Arg Gly Ser Cys His Leu Leu Arg Glu Gln Gln 130 135

<210> 3684

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3684

Met Ala Lys Arg Leu Gln Ala Glu Leu Ser Cys Pro Val Cys Leu Asp

1 5 10 15

Pho Pho Ser Cys Ser Lle Ser Leu Ser Cys Thr His Val Pho Cys Pho

Phe Phe Ser Cys Ser Ile Ser Leu Ser Cys Thr His Val Phe Cys Phe 20 25 30

Asp Cys 11e Gln Arg Tyr 11e Leu Glu Asn His Asp Phe Arg Ala Met 35 40 45

Cys Pro Leu Cys Arg Asp Val Val Lys Val Pro Ala Leu Glu Glu Trp 50 55 60

Gln Val Ser Val Leu Thr Leu Met Thr Lys Gln His Asn Ser Arg Leu
65 70 75 80

Glu Gln Ser Leu His Val Arg Glu Glu Leu Arg His Phe Arg Glu Asp

85 90 95

Val Thr Leu Asp Ala Ala Thr Ala Ser Ser Leu Leu Val Phe Ser Asn 100 105 110

Asp Leu Arg Ser Ala Gln Cys Lys Lys lle His His Asp Leu Thr Lys 115 120 125 Asp Pro Arg Leu Ala Cys Val Leu Gly Thr Pro Cys Phe Ser Ser Gly 135 Gln His Tyr Trp Glu Val Glu Val Gly Glu Val Lys Ser Trp Ser Leu 145 155 160 Gly Val Cys Lys Glu Pro Ala Asp Arg Lys Ser Asn Asp Leu Phe Pro 170 Gly His Gly Phe Trp Ile Ser Met Lys Ala Gly Ala Ile His Ala Asn 185 Thr His Leu Glu Arg Ile Pro Ala Ser Pro Arg Leu Arg Arg Val Gly 205 195 200 Ile Phe Leu Asp Ala Asp Leu Glu Glu Ile Gln Phe Phe Asp Val Asp 215 220 Asn Asn Val Leu lle Tyr Thr His Asp Gly Phe Phe Ser Leu Glu Leu 225 230 235 240 Leu Cys Pro Phe Phe Cys Leu Glu Leu Leu Gly Glu Gly Glu Ser Gly 245 250 255 Asn Val Leu Thr lle Cys Pro 260

<210> 3685

<211> 194

<212> PRT

<213> Homo sapiens

<400> 3685

Met Asp Trp Gly Gly Gly Ser Thr Leu Thr Pro Ala Gly Ala Ser Ala

1 5 10 15

Gln Glu Pro Arg Leu Ala Gln Pro Ser Leu Gly Arg Pro Ile Pro Arg 20 25 30

Val Pro His Pro Val Ser Val Ser Thr Asp Gln Gly Leu Pro Asp Thr
35 40 45

Cys Ser Gly Val Ala Met Gly Thr Ser Gly Arg Val Ser Val Ala His 50 55 60

Thr Ala Val Cys Arg His Thr Glu Gly Met His Ala Cys Val Cys Ala 65 70 75 80

His Leu His Val Phe Thr Arg Thr Gly His Arg Arg Arg Cys Ser His 90 Ser Gly Val His Arg Pro Leu Cys Arg Cys Ala His Thr Gln Gln Gly 100 105 110 Tyr Val His Arg Arg Val Cys Val Leu Ala Pro Gly Gly Gly Ser Arg 120 Pro Thr Pro His Ile Val Tyr Ser Val Pro Ala Ala Arg Thr Cys Leu 135 Gly Ala Pro Gly Ser Leu Ser Pro Cys His Leu Cys Val His Ile Cys 150 155 Ala His Thr Tyr Ser Gly Thr Pro Val Cys Val His Gly Cys Pro Gly 170 165 Thr Leu Gly Ser Pro Ser Pro Arg Leu Pro Arg Leu Leu Glu Ser Gly 180 185 190 Thr Phe

<210> 3686

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3686

Met Arg Ser Phe Leu Leu Val Trp Lys Leu Phe Arg Arg Lys Asp Met Lys His Gln Arg Lys Thr Ala Thr Glu Phe Lys Thr Thr Glu Glu Gly 25 Glu Thr Arg Gln Asp Gly Lys Asp Gly Ser Leu Thr Tyr Arg Ala Asp 35 40 45 Thr Cys Ser Pro Cys Pro Glu Ala Gly Gly Pro Pro Ser Ser Ser Ile 55 Ala Ser Gly Ser Ser IIe Ser Val Gly Asn Ser Pro Ser His Ser His 70 75 Ser His Thr Ser Arg Arg Cys Gly Gly Ser Ser Arg Ser Arg Glu Cys 85 90 95

Cys Ser Ser Leu His Ser Ser Arg Gly Ser Arg Gly Ser Ser Trp Ser Ser Ser Pro Pro Gly Ser Thr Cys Arg Trp Cys Ser Cys His Ser His His His Ser His His Arg Ser His His Arg Ser His His Cys Ser His His His Ser His His Ser Gly His His Ser His His Asn Phe His Asn His Ser Asn Pro Trp Cys Gln 

<210> 3687

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3687

Met Leu Val Met Glu Asp Gln His Asn Ser Glu Ile Glu Ser Leu Gln Lys Ala Leu Gly Val Ala Arg Glu Asp Asn Arg Lys Leu Ala Met Ser Leu Glu Gln Ala Leu Gln Thr Asn Asn His Leu Gln Thr Lys Leu Asp His Ile Gln Glu Gln Leu Glu Ser Lys Glu Leu Glu Arg Gln Asn Leu Glu Thr Phe Lys Asp Arg Met Thr Glu Glu Ser Lys Val Glu Ala Glu Leu His Ala Glu Arg Ile Glu Ala Leu Arg Lys Gln Phe Gln Thr Glu 

Lys Ala Leu Asp Glu Ala Asn Phe Arg Ser Val Glu Val Ser Arg Thr 115 Leu Arg Glu Leu Arg Gln Lys Leu Ala Glu Leu Glu Lys Ile Leu Glu

Arg Glu Thr Thr Lys Lys Val Ala Gln Arg Glu Val Ala Glu Leu Lys

Ser Asn Lys Glu Lys Ile Lys Asn Gln Lys Thr Gln Ile Lys Leu His Leu Ser Ala Lys Ala Asn Asn Ala Gln Asn lle Glu Arg Met Lys Val Val Trp Glu Thr Ser Ser His Phe Leu Asp Thr Leu <210> 3688 <211> 125 <212> PRT <213> Homo sapiens <400> 3688 Met Thr Cys Trp Glu Gly Asn Cys His Val Cys Ser Ser Pro Gly Gly Ser Asp Val Phe Leu Ile Ile Leu Gln Val Pro Lys Ala His Pro Cys Leu Trp Gly His lle Thr Ser His Val Thr Leu Cys Ser Phe Gly Thr Met Ser Leu Trp Thr Val Trp Leu Ile Val Val Val Gln Gly Gln Val Met Cys His Pro Ser Leu Lys Cys Leu His Pro Val Asn Cys Leu Ala Tyr Phe Pro Leu Thr Pro Gly Ser Gly Pro Ser Ser Leu Leu Ser Pro

Tyr Leu Ser Pro His Ile Gln Ser Pro Pro Lys Ile Leu Pro Val Leu

Leu Leu Cys Pro Phe Glu Arg Ala Gln Ser Phe 11e Leu

<210> 3689

<211> 343

<212> PRT

## <213> Homo sapiens

<400	)> 36	689													
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Ala	Ala	His	Thr	Met	Pro	Arg	Arg	Lys	Lys	Gly	Tyr	Cys	Glu	Cys	Cys
			20					25					30		
Gln	Glu	Ala	Phe	Glu	Glu	Leu	His	Val	His	Leu	Gln	Ser	Ala	Gln	His
		35					40					45			
Arg	Ser	Phe	Ala	Leu	G1u	Ala	His	Leu	Tyr	Ala	Glu	Val	Asp	Arg	lle
	50					55					60				
He	Ala	Gln	Leu	Ser	His	Ser	Phe	Ala	Asp	He	Pro	Phe	Gln	Ala	Gly
65					70					75					80
Leu	Pro	Arg	Trp	Ser	Gly	Ser	Pro	Ala	Ser	Asp	Cys	Asp	Pro	Leu	Cys
				85					90					95	
Pro	Glu	Thr	Leu	His	Pro	His	Gln	Pro	Ser	His	Pro	Arg	Ala	Ala	Ser
			100					105					110		
Pro	Arg		Arg	Lys	Glu	Asp	Ser	Cys	Gln	Ala	Ser		Thr	Gln	Gly
		115					120					125			
Arg		Ala	Gly	Gln	Gln		Trp	Thr	Glu	Ser	Leu	Asp	Gly	Val	Met
	130					135	_				140				-
	Pro	Pro	Ala	Ser	His	Thr	Cys	Val	Ser		Thr	Thr	Leu	Leu	
145					150			0.1		155					160
Ala	Leu	Pro	Lys		Ser	Arg	Glu	GIn		Cys	l.eu	Cys	Pro		Pro
. 1		DI	TI.	165	C			V 1	170	C				175	D
Ala	Ser	Phe		GIn	Ser	HIS	Leu		Ihr	Ser	Leu	Ala		Leu	Pro
C1	C1	Т	180	Dwa	A 1 =	C1	Λ	185 Mat	Dage	1	113	D <sub>10.0</sub>	190	C1	C1
GTY	GIU	11p	Ser.	PTO	Ala	GIU	200		FFO	Leu	ms	205	261.	GIN	Olu
Acn	Sor		Alo	Dro	Ala	Acn			Val	Luc	Clv		Lou	Lou	Dho
лы	210	THE	пта	110	πια	215	116	110	vai	rys	220	110	Leu	Leu	THE
Pro		Ala	Ara	Pro	Trp		Met	Sor	Ala	Ara		Trn	Val	Ara	Pro
225	014	1110	MIS	110	230	LCu	MC. C	OC)	1110	235	Cys	пр	, (1)	Au g	240
	Pro	Phe	Val	Thr	Trp	Glv	Cvs	Leu	He		Hic	Asn	Thr	Thr	
				245		ويدت	~ ; ii	u	250					255	
Leu	His	Glu	Glu		Ser	Pro	Cys	Pro		Leu	Arg	Leu	Gly		Leu

Tyr Leu Leu Leu Thr Gln Ser Leu Trp Cys Arg Val Arg Val Pro Ser Leu Ser Thr Ala Gly Pro Ile Pro Arg Thr Ser His Pro Cys Thr Leu Ala Phe Pro Ser Tyr Leu Asn Asp His Asp Leu Gly His Leu Cys Gln Ala Lys Pro Gln Gly Trp Asn Thr Pro Gln Pro Phe Leu His Cys Gly Phe Leu Ala Val Asp Ser Gly 

<210> 3690

⟨211⟩ 333

<212> PRT

<213> Homo sapiens

<400> 3690

Met Cvs Arg Gly Glv Arg Met Phe Ala Pro Thr Lys Thr Trp Arg Arg Trp His Arg Arg Val Asn Thr Thr Gln Lys Arg Tyr Ala Ile Cys Ser Ala Leu Ala Ala Ser Ala Leu Pro Ala Leu Val Met Ser Lys Gly His Arg Ile Glu Glu Val Pro Glu Leu Pro Leu Val Val Glu Asp Lys Val Glu Gly Tyr Lys Lys Thr Lys Glu Ala Val Leu Leu Leu Lys Lys Leu Lys Ala Trp Asn Asp Ile Lys Lys Val Tyr Ala Ser Gln Arg Met Arg Ala Gly Lys Gly Lys Met Arg Asn Arg Arg Arg Ile Gln Arg Arg Gly Pro Cys Ile Ile Tyr Asn Glu Asp Asn Gly Ile Ile Lys Ala Phe Arg 

Asn Ile Pro Gly Ile Thr Leu Leu Asn Val Ser Lys Leu Asn Ile Leu

	130					135					140				
Lys	Leu	Ala	Pro	Gly	Gly	His	Val	Gly	Arg	Phe	Cys	He	Trp	Thr	Glu
145					150					155					160
Ser	Ala	Phe	Arg	Lys	Leu	Asp	Glu	Leu	Tyr	Gly	Thr	Trp	Arg	Lys	Ala
				165					170					175	
Ala	Ser	Leu	Lys	Ser	Asn	Tyr	Asn	Leu	Pro	Met	His	Lys	Met	He	Asn
			180					185					190		
Thr	Asp	Leu	Ser	Arg	He	Leu	Lys	Ser	Pro	Glu	lle	Gln	Arg	Ala	Leu
		195					200					205			
Arg	Ala	Pro	Arg	Lys	Lys	Ile	His	Arg	Arg	Val	Leu	Lys	Lys	Asn	Pro
	210					215					220				
Leu	Lys	Asn	Leu	Arg	He	Met	Leu	Lys	Leu	Asn	Pro	Tyr	Ala	Lys	Thr
225					230					235					240
Met	Arg	Arg	Asn	Thr	He	Leu	Arg	Gln	Ala	Arg	Asn	His	Lys	Leu	Arg
				245					250					255	
Val	Asp	Lys	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Gln	Ala	Lys	Ser	Asp
			260					265					270		
Glu	Lys	Ala	Ala	Val	Ala	Gly	Lys	Lys	Pro	Val	Va]	Gly	Lys	Lys	Gly
		275					280					285			
Lys	Lys	Ala	Ala	Val	Gly	Val	Lys	Lys	Gln	Lys	Lys	Pro	Leu	Val	Gly
	290					295					300				
Lys	Lys	Ala	Ala	Ala	Thr	Lys	Lys	Pro	Ala	Pro	Glu	Lys	Lys	Pro	Ala
305					310					315					320
Glu	Lys	Lys	Pro	Thr	Thr	G] u	Glu	Lys	Lys	Pro	Ala	Ala			
•				325					330						

<210> 3691

<211> 364

<212> PRT

<213> Homo sapiens

<400> 3691

Met Pro Thr Leu Val Val Gly Thr Pro Pro Thr Cys Leu Gly Asp Thr
I 5 10 15

Pro Gln Pro Cys His Lys Asn Ser Gln Arg Gln Gly Pro Phe Ser His

			20					25					30		
Gly	Ala	Pro	Gly	Arg	Ala	Ala	Asp	Trp	Lys	Ala	Val	Ala	Lys	Pro	Arg
		35					40					45			
Leu	Cys	Ala	Pro	Ala	Ala	Glu	Asp	Asp	Val	Ala	Ala	Leu	Arg	Trp	Pro
	50					55					60				
Gly	Pro	Ser	Gln	G]n	Pro	Asp	Pro	Pro	Trp	Ala	Ala	Pro	His	Val	Val
65					70					75					80
Gly	Ser	Asp	Asp	Leu	Lys	Glu	Pro	Gly	Pro	Trp	Gly	Lys	Ala	Cys	Ser
				85					90					95	
Leu	Pro	Met	Trp	Ser	Thr	Gly	Pro	Glu	Ala	Arg	Asp	Gly	Asp	Ser	Ser
			100					105					110		
Val	Ser	Ser	G1 y	Arg	Leu	Ser	Cys	Ser	Ser	G1 y	G] y	His	Asp	Val	Cys
		115					120				,	125			
Val		Trp	Lys	Glu	Arg		Pro	Gln	Val	Leu	Gly	Pro	Gln	Gln	Arg
_	130					135	_		6.1		140				
	Arg	Lys	Ser	Asp		Arg	Leu	Glu	GIn		Arg	Asp	Lys	He	
145	0.1		Tr.	0.1	150	61	6	0		155		01	æ.		160
Ala	GIn	Ala	irp		Gin	Gly	Ser	Cys		Ser	Leu	61 y	ihr	Ser	Ala
D	C	C	۸۱.	165	A	1	11.5	1	170	C	M-+	I	Tl	175	Λ
L10	Ser	261	180	ser	MIG	Leu	nis	185	Ма	261	мес	Leu	190	Leu	Mrg
Δνα	Lve	Glv		Glu	Λla	Lve	Aen		Pro	Pro	Δla	Pro		Cys	Sor
Mg	Lys	195	OIII	Olu	MIG	Lys	200	110	110	110	пла	205	Olu	Cys	Jei
G1 v	Phe		He	Leu	Ser	Ala		Glu	Arø	Arø	Val		Ala	Lys	Ala
01,	210			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	001	215		0	6	0	220	0.4		2,2	
Ser		Gly	Gln	Gly	Arg		Leu	Ser	Arg	Val		Gln	His	Gln	Val
225		ž		•	230				Ü	235					240
Pro	Val	Leu	Arg	Glu	Lys	Pro	Lys	Arg	Val	Lys	Ser	Ser	Ser	Cys	Lys
				245					250					255	
Arg	Glu	Lys	Thr	Pro	Lys	Leu	Pro	Ser	Pro	Arg	Arg	Ala	Ala	Lys	Asp
			260					265					270		
Lys	His	Lys	Asp	Glu	Gly	Trp	Gln	Ser	Cys	Ser	His	Phe	Val	Asp	Glu
		275					280					285			
Ala	Thr	Glu	Val	His	Arg	Val	Ser	Thr	Ala	Cys	Pro	Gly	Leu	His	Arg
	290					295					300				

<210> 3692

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3692

Met Trp Lys Gly Phe Ile Leu Thr Val Val Glu Leu Arg Val Pro Thr Asp Leu Thr Leu Leu Pro Gly His Leu Tyr Met Met Ser Glu Val Leu Ala Lys Glu Glu Ala Arg Arg Ala Leu Glu Thr Pro Ser Cys Phe Leu Lys Val Ser Arg Leu Glu Ala Gln Leu Leu Leu Glu Arg Tyr Pro Glu Cys Gly Asn Leu Leu Arg Pro Ser Gly Asp Gly Ala Asp Gly Val Ser Val Thr Thr Arg Gln Met His Asn Gly Thr His Val Val Arg His Tyr Lys Val Lys Arg Glu Gly Pro Lys Tyr Val Ile Asp Val Glu Gln Pro Phe Ser Cys Thr Ser Leu Asp Ala Val Val Asn Tyr Phe Val Ser His Thr Lys Lys Ala Leu Val Pro Phe Leu Leu Asp Glu Asp Tyr Glu 

Lys Val Leu Gly Tyr Val Glu Ala Asp Lys Glu Asn Gly Glu Asn Val

Trp Val Ala Pro Ser Ala Pro Gly Pro Gly Pro Ala Pro Cys Thr Gly Gly Pro Lys Pro Leu Ser Pro Ala Ser Ser Gln Asp Lys Leu Pro Pro Leu Pro Pro Leu Pro Asn Gln Glu Glu Asn Tyr Val Thr Pro Ile Gly Asp Gly Pro Ala Val Asp Tyr Glu Asn Gln Asp Val Ala Ser Ser Ser Trp Pro Val Ile Leu Lys Pro Lys Leu Pro Lys Pro Pro Ala Lys Leu Pro Lys Pro Pro Val Gly Pro Lys Pro Glu Lys Gly Phe His His Val Ala Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His His Thr Trp Pro His Leu Ser Ser Leu Pro Glu Pro Lys Val Phe Asn Gly Gly Leu Gly Arg Lys Leu Pro Val Ser Ser Ala Gln Pro Leu Phe Pro Thr Ala Gly Leu Ala Asp Met Thr Ala Glu Leu Gln Lys Lys Leu Glu Lys Arg Arg Ala Leu Glu His 

<210> 3693

<211> 186

<212> PRT

<213> Homo sapiens

<400> 3693

Met Trp Leu Val Glu Cys Thr Gly Arg Asp Leu Thr Gly Leu Ser Cys

1 5 10 15

Leu Leu Gly Met Asp Arg Gln Pro Arg Arg Arg Gln His Val Ala Gly
20 25 30

Cys Arg Asp Val Pro Pro Pro Leu Pro Gln Gly Ser Trp Gly Gln Thr Ser Pro Arg His Ser Ile Leu Cys Ser Lys Ser Gly Cys Asp Leu Leu 50 55 Gly Gly Gly Glu Tyr Asn Gly Glu Thr Ser Gly Glu Glu Phe Leu Ala 70 75 Pro Ala Trp Thr Cys Arg Ala Gln Gln Ala Ala Thr Trp Leu Ser Val Gln Gln Thr Ser His Lys Ala Leu Gly Pro Ala Gly Gly Ala Ala Met 105 Ser Ser Lys Leu Ser Pro Glu Glu Gln Phe Leu Ser Arg Ile His Phe 120 Leu Arg Thr Phe Met Cys Ser Val Ala Gly Ala Glu Leu Pro Gly Ile 130 135 140 Pro Gln Ala Thr Glu Asn Gly Glu Gly Cys Arg Pro Ala Arg Asp Pro 150 155 Ala Ser Ser Pro Ser Ser Leu Ser Met Ala Ser Val Cys Thr Gln Cys 165 170 Ser Ser Ala Gln Leu Val Ser Ala Leu Ser 180 185

<210> 3694

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3694

 Met Lys Thr His Ser Leu Thr 11e Thr Arg Thr Ala Ser Arg Gly Gly

 1
 5
 10
 15

 Ala Asn Pro Phe Val Arg Ser Cys Pro His Asp Pro Ile Thr Ser His
 20
 25
 30

 His Ala Leu Pro Pro Thr Leu Gly Ile Ile Glu His Glu Met Trp
 35
 40
 45

 Met Gly Thr Gln Ile Gln Thr Ile Ser Lys Cys Val Val Phe Phe Phe

50 55 60

<210> 3695

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3695

Met Ala Val Gly lle Leu Thr Gln Thr Val Gly Pro Trp Pro Arg Leu

1 5 10 15

Val Ala Tyr Leu Ser Lys Gln Leu Asp Gly Val Phe Lys Asp Trp Pro 20 25 30

Pro Cys Leu Arg Ala Leu Ala Ala Thr Ala Leu Leu Ala Gln Glu Val 35 40 45

Asp Lys Leu Thr Leu Gly Gln Asn Leu Asn Ile Lys Ala Ser His Ala 50 55 60

Val Val Thr Leu Met Asn Thr Lys Gly His His Trp Leu Met Asn Ala
65 70 75 80

Arg Leu Thr Arg Tyr Gln Asn Leu Leu Cys Glu Lys Pro Cys 11e Thr
85 90 95

lle Glu Val Cys Asn Thr Leu Asn Pro Ala Thr Leu Leu Pro Val Pro
100 105 110

Glu Ser Pro Val Glu Gln Asn Cys Val Glu Val Leu Asp Thr Val Tyr 115 120 125

Ser Ser Arg Leu Asp Leu Gln Asp His Thr Trp Ala Ser Val Asp Trp 130 135 140

Cys Ala

<210> 3696

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3696

Met Gln Gln Asp Pro Glu Leu Pro Ser Val Thr Arg Phe Cys Leu Pro

1 5 10 15

Leu Cys Ala Arg Cys Tyr Val Gln Pro Gln Trp Val Phe Asp Ser Val
20 25 30

Asn Ala Arg Leu Leu Pro Val Ala Glu Tyr Phe Ser Gly Val Gln 35 40 45

Leu Pro Pro His Leu Ser Pro Phe Val Thr Glu Lys Glu Gly Asp Tyr 50 55 60

Val Pro Pro Glu Lys Leu Lys Leu Leu Ala Leu Gln Arg Gly Glu Asp
65 70 75 80

Pro Gly Glu Arg Asp Gly Thr Gly Leu Ala Leu Thr Pro Gly Pro Thr
85 90 95

Leu Ala Val Ser Leu Ser Cys Gln Gly Gly Lys Leu Gln Gly Thr Gly
100 105 110

Ser Arg Ser Arg Lys Pro Phe Glu Val Thr Cys Arg lle Arg Leu Arg 115 120 125

Arg Arg Asp Ile Tyr Leu Leu Gly Ser Gly Val Ile 130 135 140

<210> 3697

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3697

Met His Ser Arg His Leu Lys Ile Leu Ser His His Cys Cys Pro Val 10 Thr Thr Leu His Val Asn Ala Ser Leu Ser Leu Glu Leu Ser Leu Ser 25 Tyr Ser Gln Leu Pro Pro Pro Asn Thr Phe Arg Ala Gln Val Phe Ser Val Thr Leu Ala Ser Leu Pro Cys Leu Leu Leu Leu Cys Lys Ser Asn 55 60 Ser Pro Leu Cys Pro Val Leu Phe Ser Ser Leu Leu His Ser Ile Pro 65 70 75 80 Arg Leu Pro Gln Asp Arg Val Ala Ser Ala Leu Asn Glu Phe Phe Ser 90 85 Pro Gly Leu Gln Gly Pro Gln Arg Ser Ser Ser Tyr Tyr Phe Met Asp 100 105 110 Cys Met Asn Ser Thr His Leu Val Thr Ser Trp Gln Val Val Trp Arg 115 120 125

<210> 3698

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3698

Met 61y 8sn Val Met 61u 61y 8sp Ser Val 61u 61u 6th Ser 7hr 1  $\cdot$  15  $\cdot$  15  $\cdot$  16u 6th Ser 7hr 1  $\cdot$  15  $\cdot$  15  $\cdot$  15  $\cdot$  16u 6th Ser 7hr 1  $\cdot$  15  $\cdot$  16  $\cdot$  16  $\cdot$  16  $\cdot$  16  $\cdot$  16  $\cdot$  17  $\cdot$  18  $\cdot$  18  $\cdot$  19  $\cdot$  19  $\cdot$  19  $\cdot$  10  $\cdot$  19  $\cdot$  10  $\cdot$  10

90

95

Lys Leu Tyr Asp Val Asp Gly Asn Gly Cys Ile Asp Arg Asp Glu Leu 105 Leu Thr Ile Ile Gln Ala Ile Arg Ala Ile Asn Pro Cys Ser Asp Thr 115 120 125 Thr Met Thr Ala Glu Glu Phe Thr Asp Thr Val Phe Ser Lys Ile Asp 135 140 Val Asn Gly Asp Gly Glu Leu Ser Leu Glu Glu Phe Ile Glu Gly Val 150 155 160 Gln Lys Asp Gln Met Leu Leu Asp Thr Leu Thr Arg Ser Leu Asp Leu 165 170 175 Thr Arg Ile Val Arg Arg Leu Gln Asn Gly Glu Gln Asp Glu Glu Gly 180 185 190 Ala Asp Glu Ala Ala Glu Ala Ala Gly 195 200

<210> 3699

<211> 1394

<212> PRT

<213> Homo sapiens

<400> 3699

Met Ala Ala Leu Leu Arg Ser Ala Arg Trp Leu Leu Arg Ala Gly Ala

1 5 10 15

Ala Pro Arg Leu Pro Leu Ser Leu Arg Leu Leu Pro Gly Gly Pro Gly
20 25 30

Arg Leu His Ala Ala Ser Tyr Leu Pro Ala Ala Arg Ala Gly Pro Val

Ala Gly Gly Leu Leu Ser Pro Ala Arg Leu Tyr Ala Ile Ala Ala Lys 50 55 60

Glu Lys Asp Ile Gln Glu Glu Ser Thr Phe Ser Ser Arg Lys Ile Ser
65 70 75 80

Asn Gln Phe Asp Trp Ala Leu Met Arg Leu Asp Leu Ser Val Arg Arg 85 90 95

Thr Gly Arg Ile Pro Lys Lys Leu Leu Gln Lys Val Phe Asn Asp Thr
100 105 110

Cys	Arg	Ser	Gly	Gly	Leu	Gly	Gly	Ser	His	Ala	Leu	Leu	Leu	Leu	Arg
		115					120					125			
Ser	Cys	G1 y	Ser	Leu	Leu	Pro	Glu	Leu	Lys	Leu	G] u	Glu	Arg	Thr	Glu
	130					135					140				
Phe	Ala	His	Arg	11e	Trp	Asp	Thr	Leu	Gln	Lys	Leu	Gly	Ala	Val	Tyr
145					150					155					160
Asp	Val	Ser	His	Tyr	Asn	Ala	Leu	Leu	Lys	Val	Tyr	Leu	Gln	Asn	Glu
				165					170					175	
Tyr	Lys	Phe	Ser	Pro	Thr	Asp	Phe	Leu	Ala	Lys	Met	Glu	Glu	Ala	Asn
			180					185					190		
He	Gln	Pro	Asn	Arg	Val	Thr	Tyr	Gln	Arg	Leu	lle	Ala	Ser	Tyr	Cys
		195					200					205			
Asn	Val	Gly	Asp	11e	Glu	Gly	Ala	Ser	Lys	Пе	Leu	Gly	Phe	Met	Lys
	210					215					220				
Thr	Lys	Asp	Leu	Pro	Val	Thr	Glu	Ala	Val	Phe	Ser	Ala	Leu	Va]	Thr
225					230					235					240
Gly	His	Ala	Arg	Ala	Gly	Asp	Met	Glu	Asn	Ala	Glu	Asn	He	Leu	Thr
				245					250					255	
Val	Met	Arg	Asp	Ala	Gly	He	Glu	Pro	Gly	Pro	Asp	Thr	Tyr	Leu	Ala
			260					265					270		
Leu	Leu	Asn	Ala	Tyr	Ala	Glu	Lys	Gly	Asp	He	Asp	His	Val	Lys	Gln
		275					280					285			
Thr	Leu	Glu	Lys	Val	Glu	Lys	Ser	Glu	Leu	His	Leu	Met	Asp	Arg	Asp
	290					295					300				
Leu	Leu	Gln	Пе	He	Phe	Ser	Phe	Ser	Lys	Ala	Gly	Tyr	Pro	Gln	Tyr
305					310					315					320
Val	Ser	G1u	lle		Glu	Lys	Val	Thr		Glu	Arg	Arg	Tyr	He	Pro
				325					330					335	
Asp	Ala	Met		Leu	lle	Leu	Leu		Va]	Thr	Glu	Lys		Glu	Asp
			340					345					350		
Val	Ala		GIn	He	Leu	Leu		Cys	Pro	Val	Ser		Glu	Asp	Gly
• .		355					360					365	<b></b> .		
Pro		Val	Phe	G1 y	Ser		Phe	Leu	GIn	His		Val	Thr	Met	Asn
Ti	370	12 1	C 3			375		Tr.	C		380			6.1	17 7
	Pro	val	Glu	Lys		lhr	Λsp	lyr	Cys		Lys	Leu	Lys	Glu	
385					390					395					400

Gln	Met	His	Ser	Phe	Pro	Leu	Gln	Phe	Thr	Leu	His	Cys	Ala	Leu	Leu
				405					410					415	
Ala	Asn	Lys	Thr	Asp	Leu	Ala	Lys	Ala	Leu	Met	Lys	Ala	Val	Lys	Glu
			420					425					430		
G] u	G1y	Phe	Pro	He	Arg	Pro	His	Tyr	Phe	Trp	Pro	Leu	Leu	Val	G1 y
		435					440					445			
Arg	Arg	Lys	Glu	Lys	Asn	Val	Gln	Gly	He	Пе	Glu	lle	Leu	Lys	Gly
	450					455					460				
Met	G1n	Glu	Leu	Gly	Val	His	Pro	Asp	Gln	Glu	Thr	Tyr	Thr	Asp	Tyr
465					470					475					480
Val	He	Pro	Cys	Phe	Asp	Ser	Val	Asn	Ser	Ala	Arg	Ala	lle	Leu	Gln
				485					490					495	
Glu	Asn	Gly	Cys	Leu	Ser	Asp	Ser	Asp	Met	Phe	Ser	Gln	Ala	Gly	Leu
			500					505					510		
Arg	Ser	Glu	Ala	Ala	Asn	Gly	Asn	Leu	Asp	Phe	Val	Leu	Ser	Phe	Leu
		515					520					525			
Lys	Ser	Asn	Thr	Leu	Pro	He	Ser	Leu	Gln	Ser	lle	Arg	Ser	Ser	Leu
	530					535					540				
Leu	Leu	Gly	Phe	Arg	Arg	Ser	Met	Asn	He	Asn	Leu	Trp	Ser	Glu	He
545					550					555					560
Thr	Glu	Leu	Leu	Tyr	Lys	Asp	Gly	Arg	Tyr	Cys	Gln	Glu	Pro	Arg	Gly
				565					570					575	
Pro	Thr	G]u		Val	G1 y	Tyr	Phe		Tyr	Asn	Leu	He	Asp	Ser	Met
			580					585					590		
Ser	Asp		Glu	Val	Gln	Ala		G] u	Glu	His	Leu		G1n	Tyr	Phe
		595					600					605			
His		Leu	Glu	Lys	Met		Val	Lys	lle	Pro		Asn	He	Tyr	Arg
	610					615					620				
	He	Arg	Asn	Leu	Leu	Glu	Ser	Tyr	His		Pro	Glu	Leu	He	
625				_	630		_			635					640
Asp	Ala	His	Leu		Val	Glu	Ser	Lys		Leu	Asp	Phe	GIn		Thr
	0.1		<b></b>	645				0.7	650	<b></b>			<b></b> .	655	
Val	GIn	Leu		Ser	Ser	G1u	Leu		Ser	Thr	Leu	Glu		Leu	Lys
. 7	61		660					665			0.7		670		
Ala	Glu		Arg	Pro	He	Arg		Val	Leu	Lys	Gln		He	Leu	Val
		675					680					685			

Leu	Cys	Ser	Glu	Glu	Asn	Met	Gln	Lys	Ala	Leu	Glu	Leu	Arg	Ala	Lys
	690					695					700				
Tyr	Glu	Ser	Asp	Met	Val	Thr	Gly	Gly	Tyr	Ala	Ala	Leu	Пе	Asn	Leu
705					710					715					720
Cys	Cys	Arg	His	Asp	Lys	Val	Glu	Asp	Ala	Leu	Asn	Leu	Lys	Glu	Glu
				725					730					735	
Phe	Asp	Arg	Leu 740	Asp	Ser	Ser	Ala	Val 745	Leu	Asp	Thr	Gly	Lys 750	Tyr	Val
Gly	Leu	Val 755	Arg	Va]	Leu	Ala	Lys 760	His	Gly	Lys	Leu	Gln 765	Asp	Ala	Ile
Asn	11e 770	Leu	Lys	Glu	Met	Lys 775	Glu	Lys	Asp	Val	Leu 780	He	Lys	Asp	Thr
Thr	Ala	Leu	Ser	Phe	Phe	His	Met	Leu	Asn	Gly	Ala	Ala	Leu	Arg	Gly
785					790					795					800
Glu	He	Glu	Thr	Val	Lys	Gln	Leu	His	Glu	Ala	He	Val	Thr	Leu	G1 y
				805					810					815	
Leu	Ala	Glu	Pro 820	Ser	Thr	Asn	lle	Ser 825	Phe	Pro	Leu	Val	Thr 830	Val	His
Leu	Glu	Lys 835	Gly	Asp	Leu	Ser	Thr 840	Ala	Leu	Glu	Val	Ala 845	lle	Asp	Cys
Tyr	Glu 850	Lys	Tyr	Lys	Val	Leu 855	Pro	Arg	He	His	Asp 860	Val	Leu	Cys	Lys
Leu 865	Val	Glu	Lys	Gly	Glu 870	Thr	Asp	Leu	He	G1n 875	Lys	Ala	Met	Asp	Phe 880
Val	Ser	Gln	Glu	G1n 885	Gly	Glu	Met	Val	Met 890	Leu	Tyr	Asp	Leu	Phe 895	Phe
Ala	Phe	Leu	G1n 900	Thr	Gly	Asn	Tyr	Lys 905	Glu	Ala	Lys	Lys	11e 910	lle	Glu
Thr	Pro	Gly 915	He	Arg	Ala	Arg	Ser 920	Ala	Arg	Leu	G1n	Trp 925	Phe	Cys	Asp
Arg	Cys 930	Val	Ala	Asn	Asn	G1n 935	Val	G1u	Thr	Leu	Glu 940	Lys	Leu	Val	Glu
Leu 945		G1n	Lys	Leu	Phe 950	Glu	Cys	Asp	Arg	Asp 955		Met	Tyr	Tyr	Asn 960
Leu	Leu	Lys	Leu	Tyr 965	Lys	11e	Asn	Gly	Asp 970	Trp	Gln	Arg	Ala	Asp 975	

val irp	Asn Lys	Ile Gln	Glu Glu	Asn Val	lle Pro	Arg Glu Lys Thr
	980			985		990
Leu Arg	Leu Leu	Ala Glu	lle Leu	Arg Glu	Gly Asn	Gln Glu Val Pro
	995		1000			1005
Phe Asp	Val Pro	Glu Leu	Trp Tyr	Glu Asp	Glu Lys	His Ser Leu Asn
1010			1015		1020	
Ser Ser	Ser Ala	Ser Thr	Thr Glu	Pro Asp	Phe Gln	Lys Asp 11e Leu
1025		1030		]	1035	1040
Ile Ala	Cys Arg	Leu Asn	Gln Lys	Lys Gly	Ala Tyr	Asp Ile Phe Leu
		1045		1050		1055
Asn Ala	Lys Glu	Gln Asn	lle Val	Phe Asn	Ala Glu	Thr Tyr Ser Asn
	1060			1065		1070
Leu lle	Lys Leu	Leu Met	Ser Glu	Asp Tyr	Phe Thr	Gln Ala Met Glu
1	075		1080			1085
Val Lys	Ala Phe	Ala Glu	Thr His	lle Lys	Gly Phe	Thr Leu Asn Asp
1090			1095		1100	
Ala Ala	Asn Ser	Arg Leu	lle lle	Thr Gln	Val Arg	Arg Asp Tyr Leu
1105		1110			1115	1120
Lys Glu	Ala Val	Thr Thr	Leu Lys	Thr Val	Leu Asp	Gln Gln Gln Thr
		0 =		1100		1135
		1125		1130		1135
Pro Ser			Thr Arg		Gln Ala	Leu Ala Met Lys
Pro Ser					Gln Ala	
	Arg Leu 1140	Ala Val		Val 11e 1145		Leu Ala Met Lys
Gly Asp	Arg Leu 1140 Val Glu 155	Ala Val Asn Ile	Glu Val 1160	Val lle 1145 Val Gln	Lys Met	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165
Gly Asp	Arg Leu 1140 Val Glu 155	Ala Val Asn Ile	Glu Val 1160	Val lle 1145 Val Gln	Lys Met	Leu Ala Met Lys 1150 Leu Asn Gly Leu
Gly Asp	Arg Leu 1140 Val Glu 155	Ala Val Asn Ile Gly Leu	Glu Val 1160	Val lle 1145 Val Gln	Lys Met	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165
Gly Asp 1 Glu Asp 1170	Arg Leu 1140 Val Glu 155 Ser Ile	Ala Val Asn Ile Gly Leu	Glu Val 1160 Ser Lys 1175	Val lle 1145 Val Gln Met Val	Lys Met Phe Ile 1180	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165
Gly Asp 1 Glu Asp 1170 Leu Ala 1185	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile	Ala Val Asn Ile Gly Leu Lys Asn 1190	Glu Val 1160 Ser Lys 1175 Asn Asp	Val lle 1145 Val Gln Met Val Ile Asp	Lys Met Phe Ile 1180 Ala Ala	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165 Asn Asn Ile Ala Ile Glu Asn Ile 1200
Gly Asp 1 Glu Asp 1170 Leu Ala 1185	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser	Glu Val 1160 Ser Lys 1175 Asn Asp	Val lle 1145 Val Gln Met Val Ile Asp Lys Val	Lys Met Phe Ile 1180 Ala Ala	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165 Asn Asn lle Ala
Gly Asp  1 Glu Asp  1170 Leu Ala 1185 Glu Asn	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn	Val 11e 1145 Val Gln Met Val He Asp Lys Val 1210	Lys Met Phe Ile 1180 Ala Ala 1195 Ile Glu	Leu Ala Met Lys 1150  Leu Asn Gly Leu 1165  Asn Asn Ile Ala  Ile Glu Asn Ile 1200  Pro Gln Tyr Phe 1215
Gly Asp  1 Glu Asp  1170 Leu Ala 1185 Glu Asn	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu Ala Tyr	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn Arg Lys	Val lle 1145 Val Gln Met Val Ile Asp Lys Val 1210 Val lle	Lys Met Phe Ile 1180 Ala Ala 1195 Ile Glu	Leu Ala Met Lys 1150 Leu Asn Gly Leu 1165 Asn Asn 11e Ala 11e Glu Asn 11e 1200 Pro Gln Tyr Phe
Gly Asp  1 Glu Asp  1170 Leu Ala 1185 Glu Asn  Gly Leu	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu Ala Tyr 1220	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser 1205 Leu Phe	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn Arg Lys	Val lle 1145 Val Gln Met Val He Asp Lys Val 1210 Val He	Lys Met  Phe Ile  I180  Ala Ala  I195  Ile Glu  Glu Glu	Leu Ala Met Lys 1150  Leu Asn Gly Leu 1165  Asn Asn Ile Ala  Ile Glu Asn Ile 1200  Pro Gln Tyr Phe 1215  Gln Leu Glu Pro 1230
Gly Asp  I Glu Asp  1170 Leu Ala 1185 Glu Asn  Gly Leu Ala Val	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu Ala Tyr 1220 Glu Lys	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser 1205 Leu Phe	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn Arg Lys	Val lle 1145 Val Gln Met Val He Asp Lys Val 1210 Val He	Lys Met Phe Ile 1180 Ala Ala 1195 Ile Glu Glu Glu Arg Leu	Leu Ala Met Lys 1150  Leu Asn Gly Leu 1165  Asn Asn Ile Ala  Ile Glu Asn Ile 1200  Pro Gln Tyr Phe 1215  Gln Leu Glu Pro 1230  Ala Asn Gln Phe
Gly Asp  1 Glu Asp 1170 Leu Ala 1185 Glu Asn Gly Leu Ala Val	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu Ala Tyr 1220 Glu Lys 235	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser 1205 Leu Phe Ile Ser	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn Arg Lys 11e Met 1240	Val lle 1145 Val Gln Met Val He Asp Lys Val 1210 Val He 1225 Ala Glu	Lys Met  Phe Ile  1180  Ala Ala  1195  Ile Glu  Glu Glu  Arg Leu	Leu Ala Met Lys 1150  Leu Asn Gly Leu 1165  Asn Asn Ile Ala  Ile Glu Asn Ile 1200  Pro Gln Tyr Phe 1215  Gln Leu Glu Pro 1230  Ala Asn Gln Phe
Gly Asp  1 Glu Asp 1170 Leu Ala 1185 Glu Asn Gly Leu Ala Val	Arg Leu 1140 Val Glu 155 Ser Ile Gln Ile Met Leu Ala Tyr 1220 Glu Lys 235	Ala Val Asn Ile Gly Leu Lys Asn 1190 Thr Ser 1205 Leu Phe Ile Ser Pro Val	Glu Val 1160 Ser Lys 1175 Asn Asp Glu Asn Arg Lys 11e Met 1240	Val lle 1145 Val Gln Met Val He Asp Lys Val 1210 Val He 1225 Ala Glu	Lys Met  Phe Ile  1180  Ala Ala  1195  Ile Glu  Glu Glu  Arg Leu	Leu Ala Met Lys 1150  Leu Asn Gly Leu 1165  Asn Asn Ile Ala  Ile Glu Asn Ile 1200  Pro Gln Tyr Phe 1215  Gln Leu Glu Pro 1230  Ala Asn Gln Phe

Gly Lys Val Asp Asp Ala Arg Ala Leu Leu Gln Arg Cys Gly Ala 11e Ala Glu Gln Thr Pro IIe Leu Leu Leu Phe Leu Leu Arg Asn Ser Arg Lys Gln Gly Lys Ala Ser Thr Val Lys Ser Val Leu Glu Leu lle Pro Glu Leu Asn Glu Lys Glu Glu Ala Tyr Asn Ser Leu Met Lys Ser Tyr Val Ser Glu Lys Asp Val Thr Ser Ala Lys Ala Leu Tyr Glu His Leu Thr Ala Lys Asn Thr Lys Leu Asp Asp Leu Phe Leu Lys Arg Tyr Ala Ser Leu Leu Lys Tyr Ala Gly Glu Pro Val Pro Phe lle Glu Pro Pro Glu Ser Phe Glu Phe Tyr Ala Gln Gln Leu Arg Lys Leu Arg Glu Asn 

<210> 3700

Ser Ser

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3700

Asn Tyr Glu Pro Leu Leu Lys Glu Ile Arg Glu Arg Thr Gln Thr Lys Asn Ile Pro Leu Ser Trp Ile Gly Ile Ile Asn Ile Val Lys Met Ala Thr Leu Pro Lys Val 11e Tyr Arg 11e Asn Ala 11e Pro 11e Glu Leu Pro Leu Thr Phe Phe Thr Glu Leu Glu Lys Asn Asp Phe Lys Phe His Met Glu Pro Lys Asn Ser Ser Tyr Ser Gln Asp Asn Pro Lys Gln Lys Arg Ala Lys Leu Glu Ala Ser Cys Tyr Leu Thr Ser Asn Cys Thr Thr 

<210> 3701

Val Leu Gln

<211> 731

<212> PRT

<213> Homo sapiens

<400> 3701

Met Glu Arg Ser Asp Glu Glu Asn Leu Lys Glu Glu Cys Ser Ser Thr Glu Ser Thr Gln Gln Glu His Glu Asp Ala Pro Ser Thr Lys Leu Gln Gly Glu Val Leu Ala Leu Glu Glu Glu Arg Ala Gln Val Leu Gly His Val Glu Gln Leu Lys Val Arg Val Lys Glu Leu Glu Gln Gln Leu Gln Glu Ser Ala Arg Glu Ala Glu Met Glu Arg Ala Leu Leu Gln Gly Glu Arg Glu Ala Glu Arg Ala Leu Leu Gln Lys Glu Gln Lys Ala Val Asp Gln Leu Gln Glu Lys Leu Val Ala Leu Glu Thr Gly 11e Gln Lys Glu

			100					105					110		
Arg	Asp	Lys	Glu	Arg	Ala	Glu	Leu	Ala	Ala	Gly	Arg	Arg	His	Leu	Glu
		115					120					125			
Ala	Arg	Gln	Ala	Leu	Tyr	Ala	Glu	Leu	Gln	Thr	Gln	Leu	Asp	Asn	Cys
	130					135					140				
Pro	Glu	Ser	Val	Arg	Glu	Gln	Leu	Gln	Glu	Gln	Leu	Arg	Arg	Glu	Λla
145					150					155					160
Glu	Ala	Leu	Glu	Thr	Glu	Thr	Lys	Leu	Phe	Glu	Asp	Leu	Glu	Phe	Gln
				165					170					175	
Gln	Leu	Glu	Arg	Glu	Ser	Arg	Val	Glu	Glu	Glu	Arg	Glu	Leu	Ala	Gly
			180					185					190		
Gln	Gly	Leu	Leu	Arg	Ser	Lys	Ala	Glu	Leu	Leu	Arg	Ser	lle	Ala	Lys
		195					200					205			
Arg	Lys	Glu	Arg	Leu	Ala	11e	Leu	Asp	Ser	Gln	Ala	Gly	Gln	He	Arg
	210					215					220				
Ala	Gln	Ala	Val	Gln	Glu	Ser	Glu	Arg	Leu	Ala	Arg	Asp	Lys	Asn	Ala
225					230					235					240
Ser	Leu	Gln	Leu	Leu	Gln	Lys	Glu	Lys	Glu	Lys	Leu	Thr	Val	Leu	Glu
				245					250					255	
Arg	Arg	Tyr	His	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Phe	Pro	Lys	Thr	Thr
			260					265					270		
Ser	Thr	Leu	Lys	Glu	Met	Glu	Lys	Leu	Leu	Leu	Pro	Ala	Val	Asp	Leu
		275					280					285			
Glu	Gln	Trp	Tyr	Gln	Glu	Leu	Met	Ala	Gly	Leu	Gly	Thr	Gly	Pro	Ala
	290					295					300				
Ala	Ala	Ser	Pro	His	Ser	Ser	Pro	Pro	Pro	Leu	Pro	Ala	Lys	Ala	Ser
305					310					315					320
Arg	Gln	Leu	Gln	Val	Tyr	Arg	Ser	Lys	Met	Asp	Gly	Glu	Ala	Thr	Ser
				325					330					335	
Pro	Leu	Pro	Arg	Thr	Arg	Ser	Gly	Pro	Leu	Pro	Ser	Ser	Ser	Gly	Ser
			340					345					350		
Ser	Ser	Ser	Ser	Ser	Gln	Leu	Ser	Val	Ala	Thr	Leu	Gly	Arg	Ser	Pro
		355					360					365			
Ser		Lys	Ser	Ala	Leu		Thr	Gln	Asn	Gly	Thr	Gly	Ser	Leu	Pro
	370					375					380				
Arg	Asn	Leu	Ala	Ala	Thr	Leu	Gln	Asp	Пe	Glu	Thr	Lys	Arg	Gln	Leu

385					390					395					400
Ala	Leu	Gln	Gln	Lys	Gly	Gln	Gln	Val	lle	Glu	Glu	Gln	Arg	Arg	Arg
				405					410					415	
Leu	Ala	Glu	Leu	Lys	Gln	Lys	Ala	Ala	Ala	Glu	Ala	Gln	Cys	Gln	Trp
			420					425					430		
Asp	Ala	Leu	His	Gly	Ala	Ala	Pro	Phe	Pro	Ala	Gly	Pro	Ser	Gly	Phe
		435					440					445			
Pro	Pro	Leu	Met	His	His	Ser	Ile	Leu	His	His	Leu	Pro	Ala	Gly	Arg
	450					455					460				
Glu	Arg	Gly	Glu	Glu	Gly	Glu	His	Ala	Tyr	Asp	Thr	Leu	Ser	Leu	Glu
465					470					475					480
Ser	Ser	Asp	Ser	Met	Glu	Thr	Ser	Ile	Ser	Thr	Gly	Gly	Asn	Ser	Ala
				485					490					495	
Cys	Ser	Pro	Asp	Asn	Met	Ser	Ser	Val	Ser	Gly	Leu	Asp	Met	Gly	Lys
			500					505					510		
He	Glu	Glu	Met	Glu	Lys	Met	Leu	Lys	Glu	Ala	His	Ala	Glu	Lys	Asn
		515					520					525			
Arg	Leu	Met	Glu	Ser	Arg	Glu	Arg	Glu	Met	Glu	Leu	Arg	Arg	Gln	Ala
	530					535					540				
Leu	Glu	Glu	Glu	Arg	Arg	Arg	Arg	Glu	Gln	Val	Glu	Arg	Arg	Leu	Gln
545					550					555					560
Ser	Glu	Ser	Ala	Arg	Arg	G1n	Gln	Leu	Val	Glu	Lys	Glu	Val	Lys	Met
				565					570					575	
Arg	Glu	Lys		Phe	Ser	G1n	Ala		Pro	Leu	Thr	Arg	Tyr	Leu	Pro
			580					585					590		
He	Arg		Glu	Asp	Phe	Asp	Leu	Lys	Thr	His	He		Ser	Ser	Gly
		595				_	600				_	605			
His		Val	Asp	Thr	Cys		His	Val	Va]	Leu		Ser	Lys	Val	Cys
	610	m				615					620	_	_	_	
	Gly	Tyr	Leu	Val		Met	G1 y	G1y	Lys		Lys	Ser	Trp	Lys	
625	T	TNI.	17. 3	DI	630					635					640
Arg	Trp	Phe	Val		Asp	Arg	Leu	Lys		Thr	Leu	Ser	lyr		Val
Δ.	1.	11.2	C1	645		,		C1	650	1.7	т	Di	0.7	655	
ASP	Lys	H1S		ınr	Lys	Leu	Lys		val	11e	lyr	Phe		Ala	11e
C1	C1	Ve 1	660	Т	۸	U;	leu	665	C	A 1 =	A 1	1	670	D	Α
11111	11111	val	I V I	I V I'	ASD	$\alpha \cdot s$	1 1-7 1 1	AITO	SPT	H 12	A 12	1 V C	SHIT	rro	ASD

Pro Ala Leu Thr Phe Cys Val Lys Thr His Asp Arg Leu Tyr Tyr Met Val Ala Pro Ser Ala Glu Ala Met Arg Ile Trp Met Asp Val Ile Val Thr Gly Ala Glu Gly Tyr Thr Gln Phe Met Asn <210> 3702 <211> 341 <212> PRT <213> Homo sapiens <400> 3702 Met Leu Asn Thr Ser Val Pro Asn Asp Met Asp Glu Gln Gln Asn Ala Arg Glu Ser Leu Glu Asp Gln Asn Leu Lys Asp Gln Asp His Leu Tyr Glu Glu Glu Ile Gly Ala Val Gly Gly Ile Asp Tyr Asn Asp Thr Asn 

Gln Asn Ala Gln Ser Glu Gln Asn Gly Ser Ser Asp Leu Leu Cys Asp Leu Asn Thr Ser Ser Tyr Asp Thr Ser Ala Leu Cys Asn Gly Phe Pro Leu Glu Asn Ile Cys Thr Gln Val Ile Asp Gln Asn Gln Asn Leu His Gly Asp Ser Lys Gln Ser Asn Leu Thr Asn Gly Asp Tyr Val Ala Ser Ser Asp Gly Thr Ser Lys Pro Ser Ser Ser Leu Ala Val Ala Ala Gln Leu Arg Glu lle Ile Pro Ser Ser Ala Leu Pro Asn Gly Thr Val Gln His Ile Leu Met Pro Asp Asp Glu Gly Glu Gly Glu Leu Cys Trp Lys 

Lys Val Asp Leu Gly Asp Val Lys Asn Val Asp Val Leu Ser Phe Ser

				165					170					175	
His	Ala	Pro	Ser	Phe	Asn	Phe	Leu	Ser	Asn	Ser	Cys	Trp	Ser	Lys	Pro
			180					185					190		
Lys	Glu	Asp	Lys	Ala	Val	Asp	Thr	Ser	Asp	Leu	Glu	Val	Ala	Glu	Asp
		195					200					205			
Pro	Met	Gly	Leu	Gln	Gly	He	Asp	Leu	Пе	Thr	Ala	Ala	Leu	Leu	Phe
	210					215					220				
Cys	Leu	Gly	Asp	Ser	Pro	Gly	Gly	Arg	Gly	Ile	Ser	Asp	Ser	Arg	Met
225					230					235					240
Ala	Asp	Ile	Tyr	His	Ile	Asp	Val	Gly	Thr	Gln	Thr	Phe	Ser	Leu	Pro
				245					250					255	
Ser	Ala	Ile	Leu	Ala	Thr	Ser	Thr	Met	Val	Gly	Glu	He	Ala	Ser	Ala
			260					265					270		
Ser	Ala	Cys	Asp	His	Ala	Asn	Pro	Gln	Leu	Ser	Asn	Pro	Ser	Pro	Phe
		275					280					285			
Gln	Thr	Leu	Gly	Leu	Asp	Leu	Val	Leu	Glu	Cys	Val	Ala	Arg	Tyr	G1n
	290					295					300				
Pro	Lys	Gln	Arg	Ser	Met	Phe	Thr	Phe	Val	Cys	Gly	Gln	Leu	Phe	Arg
305					310					315					320
Arg	Lys	Glu	Phe	Ser	Ser	His	Phe	Lys	Asn	Val	His	Gly	Asp	He	His
				325					330					335	
Ala	Gly	Leu	Asn	Gly											
			340												
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<400> 3703

<212> PRT

<213> Homo sapiens

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	50					55					60				
Glu	He	He	Val	Gly	Ala	Gly	Cys	Arg	Val	Trp	Arg	Val	Gln	Phe	Val
65					70					75					80
Leu	Ala	Val	Gly	Phe	Val	Glu	Val	Val	Leu	Trp	Lys	Thr	Tyr	Arg	Gln
				85					90					95	
Met	Pro	Ser	Phe	Pro	Ser	Leu	Ser	Gln	Glu	Glu	Ala	Thr	Trp	Gln	Glu
			100					105					110		
Gln	Glu	Ala	Pro	Arg	Arg	Asp	Thr	Pro	Thr	Glu	Ser	Ser	Cys	Ala	Val
		115					120					125			
Ala	Ala	He	Gly	Thr	Leu	Glu	Gly	Ser	Pro	Pro	Gly	He	Ser	Thr	Ser
	130					135					140				
Phe	Phe	Arg	Lys	Val	Leu	Gly	Trp	Pro	Leu	Arg	Leu	Pro	Arg	Asp	Leu
145					150					155					160
Cys	Asn	Trp	Met	Gln	Gly	Leu	Leu	Gln	Ala	Ala	Gly	Leu	His	lle	Arg
				165					170					175	
Asp	Asn	Ala	Tyr	Asn	Tyr	Cys	Tyr	Met	Tyr	Glu	Leu	Leu	Ser	Leu	Gly
			180					185					190		
Leu	Pro	Leu	Leu	Trp	Ala	Phe	Ser	Glu	Val	Leu	Ala	Ala	Met	Tyr	Arg
		195					200					205			
Glu	Ser	Glu	Gly	Ser	Leu	Glu	Ser	He	Cys	Asn	Trp	Val	Leu	Arg	Cys
	210					215					220				
Phe	Pro	Val	Lys	Leu	Arg										
225					230										
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<400> 3704

<212> PRT

<213> Homo sapiens

Met Val Gln Gly Met Cys Ser Pro Ser Pro Phe Gly Thr Ser Arg Ala l 1 Ser Thr Val Gly Thr Gln Val Asp Ser Arg Ser Leu Pro Trp Ala Leu

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Gly Al	a Ser	Ala	Gln	Arg	Gly	Asn	lle	Pro	Thr	Ala	Thr	Cys	Ala	Arg
	35					40					45			
Thr Al	a Gly	Thr	Leu	Arg	Arg	Gly	Leu	Gln	Pro	Gly	Trp	Gly	Trp	Glu
5	50				55					60				
Asp Ph	ne Leu	Asp	Glu	Gly	Gln	Pro	G1 y	Phe	Ser	Ser	Arg	Met	Ser	Trp
65				70					75					80
Ser Ar	rg Pro	Pro	Ala	Gln	Glu	Gln	Gly	Ala	Gly	Arg	Gly	Pro	Ser	Trp
			85					90					95	
Val Ar	rg Gly	Leu	Gly	Gln	Pro	Thr	Ala	Ala	Phe	Glu	Gln	Gly	Pro	Arg
		100					105					110		
Ser Se	er Val	Ser	Pro	Gln	Trp	Glu	Gly	Gly	Gly	Gln	Gly	Pro	Gly	Glu
	115					120					125			
Leu Gl	ly Arg	Lys	His	Leu	Leu	Gly	Pro	Ser	Gln	His	His	Pro	Thr	Asp
13	30				135					140				
Arg Hi	is													
145														
<210>	3705													
<211>	178													
<212>	PRT													
<213>	Homo	sapi	ens											
<400>														
Met Hi	s Ser	Met	Asp	Pro	Gln	Leu	Glu	Arg	Gln	Met	Glu	Thr	Thr	Gln
1			5					10					15	
Asn Le	eu Val	Asp	Ser	Tyr	Met	Ala	He	Val	Asn	Lys	Thr	Val	Trp	Asn
		20					25					30		
Leu Me	et Val	Gly	Ala	Lys	Pro	Lys	Thr	He	Met	His	lle	Met	lle	Tyr
	35					40					45			
Asn Va	al His	Ala	Pro	Pro	His	Gly	Asp	Gln	Gly	Val	His	Leu	Leu	Gly
5	50				55					60				
Ala Al	a Val	61n	Pro	Ala	Leu	Ala	Trp	Glu	Arg	Glu	Asp	Thr	His	G] y
65				70					75					80

Gly Val Gly Arg Ala Gly Thr Ala Ala Arg Arg Asp Ala Ala Ser Gln

90 95 85 Ser Cys Cys Pro Thr Cys Thr Arg Val Gly Thr Arg Arg His Ser Trp 105 Arg Ser Arg Gln Ser Arg His Ser Gly Ala Thr Arg Leu Ala Trp Glu 115 120 125 Glu lle Asp Thr Pro Gly Gly Val Gly Arg Ala Gly Thr Ala Ala Arg 135 Arg Asp Ser Arg Gly Asn Glu Lys Thr Leu Leu Glu Ala Ser Ala Glu 145 150 155 160 Gln Ala Asp Gln Gly Val His Leu Leu Gly Ala Ala Val Gln Pro Ala 165 170 Leu Ala

<210> 3706

<211> 736

<212> PRT

<213> Homo sapiens

<400> 3706

Met Tyr Arg Glu Met Lys Asp Ser Asp Lys Glu Lys Glu Asn Gly Lys

1 5 10 15

Met Gly Cys Trp Ser lle Glu His Val Glu Gln Tyr Leu Gly Thr Asp 20 25 30

Glu Leu Pro Lys Asn Asp Leu lle Thr Tyr Leu Gln Lys Asn Ala Asp
35 40 45

Ala Ala Phe Leu Arg His Trp Lys Leu Thr Gly Thr Asn Lys Ser Ile 50 55 60

Arg Lys Asn Arg Asn Cys Ser Gln Leu Ile Ala Ala Tyr Lys Asp Phe 65 70 75 80

Cys Glu His Gly Thr Lys Ser Gly Leu Asn Gln Gly Ala Ile Ser Thr 85 90 95

Leu Gln Ser Ser Asp Ile Leu Asn Leu Thr Lys Glu Gln Pro Gln Ala 100 105 110

Lys Ala Gly Asn Gly Gln Asn Ser Cys Gly Val Glu Asp Val Leu Gln

		115					120					125			
Leu	Leu	Arg	lle	Leu	Tyr	Ile	Val	Ala	Ser	Asp	Pro	Tyr	Ser	Arg	He
	130					135					140				
Ser	GIn	Glu	Asp	Gly	Asp	Glu	Gln	Pro	Gln	Phe	Thr	Phe	Pro	Pro	Asp
145					150					155					160
Glu	Phe	Thr	Ser	Lys	Lys	He	Thr	Thr	Lys	11e	Leu	Gln	Gln	He	Glu
				165					170					175	
Glu	Pro	Leu	Ala	Leu	Ala	Ser	Gly	Ala	Leu	Pro	Asp	Trp	Cys	Glu	Gln
			180					185					190		
Leu	Thr	Ser	Lys	Cys	Pro	Phe	Leu	Ile	Pro	Phe	Glu	Thr	Arg	Gln	Leu
		195					200					205			
Tyr	Phe	Thr	Cys	Thr	Ala	Phe	Gly	Ala	Ser	Arg	Ala	11e	Val	Trp	Leu
	210					215					220				
Gln	Asn	Arg	Arg	Glu	Ala	Thr	Val	Glu	Arg	Thr	Arg	Thr	Thr	Ser	Ser
225					230					235					240
Val	Arg	Arg	Asp	Asp	Pro	Gly	Glu	Phe	Arg	Val	Gly	Arg	Leu	Lys	His
				245					250					255	
Glu	Arg	Val	Lys	Val	Pro	Arg	Gly	Glu	Ser	Leu	Met	Glu	Trp	Ala	Glu
			260					265					270		
Asn	Val	Met	Gln	lle	His	Ala	Asp	Arg	Lys	Ser	Val	Leu	Glu	Val	Glu
		275					280	١.				285			
Phe	Leu	Gly	Glu	Glu	Gly	Thr	Gly	Leu	Gly	Pro	Thr	Leu	Glu	Phe	Tyr
	290					295					300				
Ala	Leu	Val	Ala	Ala	Glu	Phe	Gln	Arg	Thr	Asp	Leu	Gly	Ala	Trp	Leu
305					310					315					320
Cys.	Asp	Asp	Asn	Phe	Pro	Asp	Asp	Glu	Ser	Arg	His	Val	Asp	Leu	Gly
				325					330					335	
Gly	Gly	Leu	Lys	Pro	Pro	Gly	Tyr	Tyr	Val	Gln	Arg	Ser	Cys	Gly	Leu
			340					345					350		
Phe	Thr	Ala	Pro	Phe	Pro	Gln	Asp	Ser	Asp	Glu	Leu	Glu	Arg	He	Thr
		355					360					365			
Lys	Leu	Phe	His	Phe	Leu	Gly	He	Phe	Leu	Ala	Lys	Cys	He	Gln	Asp
	370					375					380				
Asn	Arg	Leu	Val	Asp	Leu	Pro	He	Ser	Lys	Pro	Phe	Phe	Lys	Leu	Met
385					390					395					400
Cys	Met	Gly	Asp	He	Lys	Ser	Asn	Met	Ser	Lys	Leu	He	Tyr	Glu	Ser

				405					410					415	
Arg	Gly	Asp	Arg	Asp	Leu	His	Cys	Thr	Glu	Ser	Gln	Ser	Glu	Ala	Ser
			420					425					430		
Thr	Glu	Glu	Gly	His	Asp	Ser	Leu	Ser	Val	Gly	Ser	Leu	Glu	Glu	Asp
		435					440					445			
Ser	Lys	Ser	Glu	Phe	He	Leu	Asp	Pro	Pro	Lys	Pro	Lys	Pro	Pro	Ala
	450					455					460				
Trp	Phe	Asn	Gly	He	Leu	Thr	Trp	Glu	Asp	Phe	Glu	Leu	Val	Asn	Pro
465					470					475					480
His	Arg	Ala	Arg	Phe	Leu	Lys	Glu	lle	Lys	Asp	Leu	Ala	He	Lys	Arg
				485					490					495	
Arg	Gln	11e	Leu	Ser	Asn	Lys	Gly	Leu	Ser	Glu	Asp	Glu	Lys	Asn	Thr
			500					505					510		
Lys	Leu	Gln	Glu	Leu	Va]	Leu	Lys	Asn	Pro	Ser	Gly	Ser	Gly	Pro	Pro
		515					520					525			
Leu	Ser	He	G]u	Asp	Leu	Gly	Leu	Asn	Phe	Gln	Phe	Cys	Pro	Ser	Ser
	530					535					540				
Arg	Пе	Tyr	G1y	Phe	Thr	Ala	Va1	Asp	Leu	Lys	Pro	Ser	Gly	Glu	Asp
545					550					555					560
Glu	Met	lle	Thr	Met	Asp	Asn	Ala	Glu	Glu	Tyr	Val	Asp	Leu	Met	Phe
				565					570					575	
Asp	Phe	Cys		His	Thr	Gly	lle	Gln	Lys	Gln	Met	Glu	Ala	Phe	Arg
			580					585					590		
Asp	Gly		Asn	Lys	Val	Phe		Met	Glu	Lys	Leu		Ser	Phe	Ser
		595					600					605			
His	Glu	Glu	Val	Gln	Met	He		-	Gly	Asn		Ser	Pro	Ser	Trp
	610										620			-	
	Ala	Glu	Asp	He		Asn	Tyr	Thr	Glu		Lys	Leu	Gly	lyr	
625			**	0.7	630			Б.	1	635			0		640
Arg	Asp	Ser	Pro		Phe	Leu	Arg	Phe		Arg	Val	Leu	Cys		Met
C	C		C 1	645		4.7	131	,	650	DI	TI	TI	61	655	C
Ser	5er	Asp		Arg	Lys	Ala	Phe		61n	Phe	Inr	inr		Cys	Ser
There	I	D	660	C1.	61.	1	дЭ.	665	1	112 -	D	Λ	670	Tt	V = 1
ınr	Leu		rro	GIŸ	ылу	Leu		ASN	Leu	л1 S	rro		Leu	ınr	vai
Vol.	Ana	675	V a 1	Acr	A16	Thr	680 Asp	A1.	Son	Tvr	Pro	685 Sor	Vol	Acr	Thr
val	11 1 1 1 1 1	1 V S	1 4 1	13 513	13 1 24	1 1 1 1 7	11 > (1)	11 12	. 34-1	1 1/1	1 ( ( )	. 71-1	101	ASI	100

Cys Val His Tyr Leu Lys Leu Pro Glu Tyr Ser Ser Glu Glu Ile Met Arg Glu Arg Leu Leu Ala Ala Thr Met Glu Lys Gly Phe His Leu Asn <210> 3707 <211> 203 <212> PRT <213> Homo sapiens <400> 3707 Met Pro Leu Leu Ala Phe Pro Gly Pro Ala Pro Ala Cys Trp Arg Pro Leu Asp Val Gln Pro Leu Pro Gln Gln Trp Ala Leu His Ala His Leu Leu Pro Gly Arg Gly Leu Phe Gly Pro Gly Ser Arg Leu Gly Ala Ala Pro Ala Gly Pro Ala Pro Ala Ser Arg Pro Ser Gly Gly Gln Ala His Ala Ser Gly Gln Pro Leu Pro Ala Trp Arg Leu Leu Cys Met Gly Ser Arg Pro Trp Thr Ser Ser Ser Arg Pro Leu Gln Ala Gln Leu Phe Leu Pro Ala Ala Ser Ala Gly Pro Asp Cys Arg Gln Val Gly Leu Ser Arg Asp Ser Ser Phe Leu Pro Ala Ala Ser Val Gly Pro Asp Cys His Gln Val Gly Leu Ser Lys Asp Ser Ser Cys Leu Pro Val Ala Ser Val Gly Pro Ser Arg Pro Gln Val Cys Leu Pro Arg Pro Ser Ser Gly Leu 

Ser Ala Ala Ser Pro Gly Ala Lys Val Pro Arg Val Arg Leu Ser Arg

Leu Ser Ser Ser Cys Leu Pro Val Ala Ser Phe Ser Pro Ala Gln Leu

180 185 190

Met Pro Pro Gly Gly Leu Pro Arg Pro Cys Phe
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<210> 3708
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<213> Homo sapiens

<400> 3708 Met Gly Leu Gln Phe Ser Gln Val Ile Ser Ile Cys Trp Ala Ala Met Gly Ser Leu Tyr Ala Glu Met Thr Glu Asn Lys Tyr Val Cys Phe Ser Ala Leu Thr lle Leu Ser Glu Trp Gln Glu Trp Glu Gly Ala Arg Gly Ser Gly Glu Leu Trp Asn Pro Glu Met Trp Gln Gly Val Ala Arg Glu Gly Tyr Trp Gly Ser Trp Gly Ala Leu Ser Pro Ala Gln Cys Ser Thr 

Glu Pro Cys Ser Ser Thr Ala Cys Pro Trp Ser Phe Trp Pro Ser Ser Thr Gly Arg Ser Thr Thr Glu Ala Trp Gly Val Gly Thr Gly Leu Arg Arg Gly Lys Gln Lys Ala Ala Ser Gly Val Leu lle Lys Leu Leu Phe lle Ser Thr Cys Gln Leu Leu His Gly Ala Arg Gly Arg Arg Leu Glu Thr Arg Glu Glu Ser Arg Ser Arg Gln Met Leu Asp Pro Arg Gly Leu Gln Ala Trp Pro Ala Ala Thr Leu Val Asp Leu Ala Leu Gly Leu Gly

Ser

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<211> 509
<212> PRT
<213> Homo sapiens
<400> 3709
Met Glu Leu Lys Lys Ser Pro Asp Gly Gly Trp Gly Trp Val 11e Val
 1
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                                     10
                                                          15
Phe Val Ser Phe Leu Thr Gln Phe Leu Cys Tyr Gly Ser Pro Leu Ala
                                 25
             20
Val Gly Val Leu Tyr lle Glu Trp Leu Asp Ala Phe Gly Glu Gly Lys
         35
                             40
                                                 45
Gly Lys Thr Ala Trp Val Gly Ser Leu Ala Ser Gly Val Gly Leu Leu
                         55
Ala Ser Pro Val Cys Ser Leu Cys Val Ser Ser Phe Gly Ala Arg Pro
                     70
                                         75
Val Thr Ile Phe Ser Gly Phe Met Val Ala Gly Gly Leu Met Leu Ser
                                     90
                 85
                                                          95
Ser Phe Ala Pro Asn Ile Tyr Phe Leu Phe Phe Ser Tyr Gly Ile Val
                                105
Val Gly Leu Gly Cys Gly Leu Leu Tyr Thr Ala Thr Val Thr 11e Thr
        115
                                                 125
                            120
Cys Gln Tyr Phe Asp Asp Arg Arg Gly Leu Ala Leu Gly Leu Ile Ser
                        135
Thr Gly Ser Ser Val Gly Leu Phe lle Tyr Ala Ala Leu Gln Arg Met
                                        155
                    150
Leu Val Glu Phe Tyr Gly Leu Asp Gly Cys Leu Leu 11e Val Gly Ala
                165
                                    170
                                                         175
Leu Ala Leu Asn Ile Leu Ala Cys Gly Ser Leu Met Arg Pro Leu Gln
                                185
Ser Ser Asp Cys Pro Leu Pro Lys Lys Ile Ala Pro Glu Asp Leu Pro
        195
                            200
                                                 205
Asp Lys Tyr Ser Ile Tyr Asn Glu Lys Gly Lys Asn Leu Glu Glu Asn
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<210> 3709

11e 225	Asn	He	Leu	Asp	Lys 230	Ser	Tyr	Ser	Ser	G1u 235	Glu	Lys	Cys	Arg	11e 240
	Leu	Ala	Asn	Gly	Asp	Trp	Lys	Gln	Asp		Leu	Leu	His	Lys	
				245					250					255	
Pro	Thr	Val	Thr	His	Thr	Lys	Glu	Pro	Glu	Thr	Tyr	Lys	Lys	Lys	Va]
			260					265					270		
Ala	Glu	Gln	Thr	Tyr	Phe	Cys	Lys	G1n	Leu	Ala	Lys	Arg	Lys	Trp	Gln
		275					280					285			
Leu		Lys	Asn	Tyr	Cys	Gly	Glu	Thr	Val	Ala	Leu	Phe	Lys	Asn	Lys
	290					295					300				
Val	Phe	Ser	Ala	Leu	Phe	lle	Ala	He	Leu	Leu	Phe	Asp	He	Gly	Gly
305					310					315					320
Phe	Pro	Pro	Ser	Leu	Leu	Met	Glu	Asp	Val	Ala	Arg	Ser	Ser	Asn	Va]
				325					330					335	
Lys	Glu	Glu	Glu	Phe	He	Met	Pro	Leu	He	Ser	Пe	He	Gly	lle	Met
			340					345					350		
Thr	Ala	Val	Gly	Lys	Leu	Leu	Leu	Gly	Ile	Leu	Ala	Asp	Phe	Lys	Trp
		355					360					365			
He	Asn	Thr	Leu	Tyr	Leu	Tyr	Val	Ala	Thr	Leu	He	He	Met	Gly	Leu
	370					375					380				
Ala	Leu	Cys	Ala	Ile	Pro	Phe	Ala	Lys	Ser	Tyr	Val	Thr	Leu	Ala	Leu
385					390					395					400
Leu	Ser	Gly	lle	Leu	Gly	Phe	Leu	Thr	Gly	Asn	Trp	Ser	He	Phe	Pro
				405					410					415	
Tyr	Val	Thr	Thr	Lys	Thr	Val	Gly	He	Glu	Lys	Leu	Ala	His	Ala	Tyr
			420					425					430		
Gly	He	Leu	Met	Phe	Phe	Ala	G1 y	Leu	Gly	Asn	Ser	Leu	Gly	Pro	Pro
		435					440					445			
lle	Val	Gly	Trp	Phe	Tyr	Asp	Trp	Thr	Gln	Thr	Tyr	Asp	He	Ala	Phe
	450					455					460				
Tyr	Phe	Ser	Gly	Phe	Cys	Val	Leu	Leu	Gly	Gly	Phe	He	Leu	Leu	Leu
465					470					475					480
Ala	Ala	Leu	Pro	Ser	Trp	Asp	Thr	Cys	Asn	Lys	Gln	Leu	Pro	Lys	Pro
				485					490					495	
Ala	Pro	Thr	Thr	Phe	Leu	Tvr	Lvs	Val	Ala	Ser	Asn	Val			

500 505

<210> 3710 <211> 672 <212> PRT <213> Homo sapiens <400> 3710 Met Val Val Ser Ala Gly Pro Trp Ser Ser Glu Lys Ala Glu Met Asn 10 Ile Leu Glu Ile Asn Glu Lys Leu Arg Pro Gln Leu Ala Glu Asn Lys 25 Gln Gln Phe Arg Asn Leu Lys Glu Lys Cys Phe Val Thr Gln Leu Ala 35 40 45 Gly Phe Leu Ala Asn Arg Gln Lys Lys Tyr Lys Tyr Glu Glu Cys Lys 55 60 Asp Leu Ile Lys Ser Met Leu Arg Asn Glu Arg Gln Phe Lys Glu Glu 70 75 65 80 Met Leu Ala Glu Gln Leu Lys Gln Ala Glu Glu Leu Arg Gln Tyr Lys 85 90 Val Leu Val His Ser Gln Glu Arg Glu Leu Thr Gln Leu Arg Glu Lys 105 Leu Arg Glu Gly Arg Asp Ala Ser Arg Ser Leu Asn Gln His Leu Gln 120 115 125 Ala Leu Leu Thr Pro Asp Glu Pro Glu Lys Ser Gln Gly Gln Asp Leu 135 Gln Glu Gln Leu Ala Glu Gly Cys Arg Leu Ala Gln His Leu Val Gln 145 150 155 160 Lys Leu Ser Pro Glu Asn Asp Asn Asp Asp Glu Asp Val Gln Val 165 170 Glu Val Ala Glu Lys Val Gln Lys Ser Ser Ala Pro Arg Glu Met Gln 190 185 Lys Ala Glu Glu Lys Glu Val Pro Glu Asp Ser Leu Glu Glu Cys Ala 195 205 200

lle Thr Cys Ser Asn Ser His Gly Pro Tyr Asp Ser Asn Gln Pro His

	210					215					220				
Arg	Lys	Thr	Lys	Πe	Thr	Phe	Glu	Glu	Asp	Lys	Val	Asp	Ser	Thr	Leu
225					230					235					240
He	Gly	Ser	Ser	Pro	His	Val	Glu	Trp	Glu	Asp	Ala	Val	His	He	He
				245					250					255	
Pro	Glu	Asn	Glu	Ser	Asp	Asp	Glu	Glu	Glu	Glu	Glu	Lys	Gly	Pro	Val
			260					265					270		
Ser	Pro	Arg	Asn	Leu	Gln	Glu	Ser	Glu	Glu	Glu	Glu	Val	Pro	Gln	Glu
		275					280					285			
Ser	Trp	Asp	Glu	Gly	Tyr	Ser	Thr	Leu	Ser	Ile	Pro	Pro	Glu	Met	Leu
	290					295					300				
Ala	Ser	Tyr	Lys	Ser	Tyr	Ser	Ser	Thr	Phe	His	Ser	Leu	Glu	Glu	Gln
305					310					315					320
Gln	Val	Cys	Met	Ala	Val	Asp	11e	Gly	Arg	Tyr	Arg	Trp	Asp	Gln	Val
				325					330					335	
Lys	Lys	Glu	Asp	Gln	Glu	Ala	Thr	Gly	Pro	Arg	Leu	Ser	Arg	Glu	Leu
			340					345					350		
Leu	Asp	Glu	Lys	Glu	Pro	Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys
		355					360					365			
Tyr	Ser	Thr	Pro	Ser	Gly	Cys	Leu	Glu	Leu	Thr	Asp	Ser	Cys	Gln	Pro
	370					375					380				
	Arg	Ser	Ala	Phe		Va]	Leu	Glu	Gln		Arg	Val	Gly	Leu	
385					390					395					400
Val	Asp	Met	Asp		He	Glu	Lys	Tyr		Glu	Val	Glu	Glu		GIn
_				405					410	,	,		61	415	6.1
Asp	Pro	Ser		Pro	Arg	Leu	Ser		Glu	Leu	Leu	Asp		Lys	Glu
D	C 1	V 1	420	61		C	,	425		C		c	430	0	<b>C</b> .
Pro	Glu		Leu	GIn	Asp	Ser		Asp	Arg	Cys	His		Inr	Pro	ser
C1	Т	435	C1	1	D	Λ	440	C1	C1	Dua	Т	445	Com	A 1 a	Vol
GLY		Leu	GIU	Leu	Pro		reu	бгу	GIH	110	Tyr 460	261	261.	MIa	vai
Tun	450 Sor	Lou	Clu	C 1	Cln	455	Lou	Cly	Lou	A1 a	Leu	Acn	Mot	Aco	Ara
	361	Leu	Olu	oru	470	ı yı	Leu	01 y	Leu	475	Leu	Asp	Met	nsp	480
465	lve	Lve	Aen	Gla		Glu	Glu	Glu	Aen		Gly	Pro	Pro	Cve	
.10	Lys	Lys	nap	485	GIU	Q I U	010	O1 U	490	OIII	01 y	110	110	495	0
Arø	Leu	Ser	Arg		Leu	Len	Glu	Val		Glu	Pro	Glu	Val		Gln

Asp Ser Leu Asp Arg Cys Tyr Ser Thr Pro Ser Ser Cys Leu Glu Gln Pro Asp Ser Cys Gln Pro Tyr Gly Ser Ser Phe Tyr Ala Leu Glu Glu Lys His Val Gly Phe Ser Leu Asp Val Gly Glu Ile Glu Lys Lys Gly Lys Gly Lys Lys Arg Arg Gly Arg Arg Ser Lys Lys Arg Arg Arg Arg Gly Arg Lys Glu Gly Glu Glu Asp Gln Asn Pro Pro Cys Pro Arg Leu Asn Gly Val Leu Met Glu Val Glu Glu Pro Glu Val Leu Gln Asp Ser Leu Asp Arg Cys Tyr Ser Thr Pro Leu Met Tyr Phe Glu Leu Pro Asp Ser Phe Gln His Tyr Arg Ser Val Phe Tyr Ser Phe Glu Glu Gln His Ile Ser Phe Ala Leu Tyr Val Asp Asn Arg Phe Phe Thr Leu Thr Val Thr Ser Leu His Leu Val Phe Gln Met Gly Val Ile Phe Pro Gln 

<210> 3711

<211> 222

<212> PRT

<213> Homo sapiens

<400> 3711

 Met Leu Asn Ser Leu Met Lys Arg Asp Leu Glu Lys His Leu Asn Val

 1
 5
 10
 15

 Ser Lys Lys Phe His Gln Val Ser 11e Leu Leu Gly 11e Glu Leu Leu
 20
 25
 30

 Tyr Gln Val Asn Phe Ser Arg Glu Ala Leu Gln Glu Arg Arg Ala Arg
 35
 40
 45

 Cys Glu Thr Gln Asn Ile Asp Pro Val Val Trp Thr Asn Gln Arg Val

	50					55					60				
Leu	Lys	Trp	Val	Arg	Asp	Ile	Asp	Leu	Lys	Glu	Tyr	Ala	Asp	Asn	Leu
65					70					75					80
Thr	Asn	Ser	Gly	Val	His	Gly	Ala	Val	Leu	Val	Leu	Glu	Pro	Thr	Phe
				85					90					95	
Asn	Ala	Glu	Ala	Met	Ala	Thr	Ala	Leu	Gly	He	Pro	Ser	Gly	Lys	His
			100					105					110		
He	Leu	Arg	Arg	His	Leu	Ala	Glu	Glu	Met	Ser	Ala	Val	Phe	His	Pro
		115					120					125			
Ala	Asn	Ser	Thr	Gly	Ile	Arg	Glu	Ala	Glu	Arg	Phe	Gly	Thr	Pro	Pro
	130					135					140				
Gly	Arg	Ala	Ser	Ser	Val	Thr	Arg	Thr	Gly	Lys	Glu	Glu	Asn	Ser	Ser
145					150					155					160
Gly	Leu	Lys	Tyr	Lys	Ala	Gly	Arg	Leu	Pro	Leu	Gly	Lys	Ile	Gly	Arg
				165					170					175	
Gly	Phe	Ser	Ser	Lys	Asp	Pro	Asp	Phe	His	Asp	Asp	Tyr	Gly	Ser	Leu
			180					185					190		
Gln	Asn	Glu	Asp	Cys	Gly	Asp	Asp	Asp	Pro	Gln	Ser	Arg	Leu	Glu	Gln
		195					200					205			
Cys	Arg	Leu	Glu	Gly	Tyr	Asn	Ser	Leu	Glu	Val	Thr	Asn	Val		
	210					215					220				
(0)		710													

<210> 3712

<211> 575

<212> PRT

<213> Homo sapiens

<400> 3712

Met Tyr Ala Gly Asn Ile Pro Ile Tyr Lys Thr Glu Ser Arg Ser Arg I 1 5 10 15 15 Asn Glu Gln Gly Met Asp Pro Ile Thr Arg Gln Val Gly Gln His Ile 20 25 30 Glu Met Glu Pro Glu Trp Glu Ala Ala Phe Thr Leu Gln Met Lys Leu 35 40 45

Thr	His 50	Val	He	Ser	Met	Met 55	Gln	Asp	Trp	Cys	Ala 60	Ser	Asp	Glu	Lys
Val		He	G1u	Ala	Tyr	Lys	lvs	Cvs	Len	Ala		Len	Met	Gln	Cvs
65	Loa		0.14	,,,,	70	2,5	12,0	0,0	1500	75		Boa		0111	80
	G1 v	Glv	Tvr	Thr		G1y	Glu	Gln	Pro		Thr	Leu	Ser	11e	
1110	01,	01,	.,.	85	пор	01)	0.14	0111	90	110		.500		95	U, U
Glv	His	Ser	Val		Thr	He	Arg	Tvr		Val	Ser	Gln	Glu		Val
			100					105	·				110	•	
Ser	Ile	His	Leu	Pro	Val	Ser	Arg	Leu	Leu	Ala	Gly	Leu	His	Val	Leu
		115					120					125			
Leu	Ser	Lys	Ser	Glu	Val	Ala	Tyr	Lys	Phe	Pro	Glu	Leu	Leu	Pro	Leu
	130					135					140				
Ser	Glu	Leu	Ser	Pro	Pro	Met	Leu	He	Glu	His	Pro	Leu	Arg	Cys	Leu
145					150					155					160
Val	Leu	Cys	Ala	Gln	Val	His	Ala	Gly	Met	Trp	Arg	Arg	Asn	Gly	Phe
				165					170					175	
Ser	Leu	Val	Asn	Gln	Ile	Tyr	Tyr	Tyr	His	Asn	Val	Lys	Cys	Arg	Arg
			180					185					190		
Glu	Met	Phe	Asp	Lys	Asp	Val	Val	Met	Leu	Gln	Thr	Gly	Val	Ser	Met
		195					200					205			
Met	Asp	Pro	Asn	His	Phe	Leu	Met	He	Met	Leu	Ser	Arg	Phe	Glu	Leu
	210					215					220				
Tyr	Gln	He	Phe	Ser	Thr	Pro	Asp	Tyr	Gly	Lys	Arg	Phe	Ser	Ser	Glu
225					230					235					240
He	Thr	His	Lys		Val	Val	Gln	Gln		Asn	Thr	Leu	lle		Glu
		_		245					250					255	
Met	Leu	Tyr		He	He	Met	Leu		Gly	Glu	Arg	Phe		Pro	GIy
	0.1	0.1	260			m		265		,		0.1	270		
Val	GTy		Val	Asn	Ala	Thr		Glu	He	Lys	Arg		He	He	H1S
C.I	,	275	7.1	,	n		280		C	C1	,	285		C	,
GIn		Ser	11e	Lys	Pro	Met	Ala	1115	Ser	GIU		vai	Lys	Ser	Leu
Dwo	290	Aan	C1	1 012	1	295	The	Clu	Mot	C1.,	300	Vol	110	C1	A1.5
305	Olu	vsh	010	ASII	310	Glu	1111.	OIÀ	ME t	315	261.	v a l	116	oru	320
	Ala	Hie	Phe	lve		Pro	Glv	Leu	Thr		Ara	Glv	Met	Tyr	
				325	, 0		<b>.</b> ,	204	330	~ <b>.</b>	8	1		335	~ <b> u</b>

Leu	Lys	Pro	Glu	Cys	Ala	Lys	Glu	Phe	Asn	Leu	Tyr	Phe	Tyr	His	Phe
			340					345					350		
Ser	Arg	Ala	Glu	Gln	Ser	Lys	Ala	Glu	Glu	Ala	Gln	Arg	Lys	Leu	Arg
		355					360					365			
Arg	Gln	Asn	Arg	Glu	Asp	Thr	Ala	Leu	Pro	Pro	Pro	Val	Leu	Pro	Pro
	370					375					380				
Phe	Cys	Pro	Leu	Phe	Ala	Ser	Leu	Val	Asn	lle	Leu	G1n	Ser	Asp	Val
385					390					395					400
Met	Leu	Cys	lle	Met	Gly	Thr	Ile	Leu	Gln	Trp	Ala	Val	Glu	His	Asn
				405					410					415	
Gly	Tyr	Ala	Trp	Ser	Glu	Ser	Met	Leu	Gln	Arg	Val	Leu	His	Leu	He
			420					425					430		
Gly	Met	Ala	Leu	Gln	Glu	Glu	Lys	Gln	His	Leu	Glu	Asn	Val	Thr	Glu
		435					440					445			
Glu	His	Val	Val	Thr	Phe	Thr	Phe	Thr	Gln	Lys	He	Ser	Lys	Pro	Gly
	450					455					460				
Glu		Pro	Lys	Asn	Ser		Ser	Ile	Leu	Ala	460 Met	Leu	Glu	Thr	Leu
Glu 465		Pro	Lys	Asn	Ser 470		Ser	Ile	Leu	Ala 475		Leu	Glu	Thr	Leu 480
465	Ala				470	Pro				475					480
465	Ala				470	Pro				475	Met				480
465 Gln	Ala Asn	Ala	Pro	Tyr 485	470 Leu	Pro Glu	Val	His	Lys 490	475 Asp	Met	Ile	Arg	Trp 495	480 11e
465 Gln	Ala Asn	Ala	Pro	Tyr 485	470 Leu	Pro Glu	Val	His	Lys 490	475 Asp	Met Met	Ile	Arg	Trp 495	480 11e
465 Gln Leu	Ala Asn Lys	Ala Thr	Pro Phe 500	Tyr 485 Asn	470 Leu Ala	Pro Glu Val	Val Lys	His Lys 505	Lys 490 Met	475 Asp Arg	Met Met	Ile Ser	Arg Ser 510	Trp 495 Pro	480 11e Thr
465 Gln Leu	Ala Asn Lys	Ala Thr	Pro Phe 500	Tyr 485 Asn	470 Leu Ala	Pro Glu Val	Val Lys	His Lys 505	Lys 490 Met	475 Asp Arg	Met Met Glu	Ile Ser	Arg Ser 510	Trp 495 Pro	480 11e Thr
465 Gln Leu Ser	Ala Asn Lys Pro	Ala Thr Val 515	Pro Phe 500 Ala	Tyr 485 Asn Glu	470 Leu Ala Thr	Pro Glu Val Glu	Val Lys Gly 520	His Lys 505 Thr	Lys 490 Met	475 Asp Arg Met	Met Met Glu	Ile Ser Glu 525	Arg Ser 510 His	Trp 495 Pro Asn	480 11e Thr Phe
465 Gln Leu Ser	Ala Asn Lys Pro	Ala Thr Val 515	Pro Phe 500 Ala	Tyr 485 Asn Glu	470 Leu Ala Thr	Pro Glu Val Glu	Val Lys Gly 520	His Lys 505 Thr	Lys 490 Met	475 Asp Arg Met	Met Met Glu Glu	Ile Ser Glu 525	Arg Ser 510 His	Trp 495 Pro Asn	480 11e Thr Phe
465 Gln Leu Ser	Ala Asn Lys Pro Val 530	Ala Thr Val 515 Gln	Pro Phe 500 Ala Gly	Tyr 485 Asn Glu Thr	470 Leu Ala Thr	Pro Glu Val Glu Thr 535	Val Lys Gly 520 Lys	His Lys 505 Thr	Lys 490 Met Ile Arg	475 Asp Arg Met	Met Met Glu Glu Arg	Ile Ser Glu 525 Glu	Arg Ser 510 His	Trp 495 Pro Asn Gln	480 11e Thr Phe
465 Gln Leu Ser	Ala Asn Lys Pro Val 530	Ala Thr Val 515 Gln	Pro Phe 500 Ala Gly	Tyr 485 Asn Glu Thr	470 Leu Ala Thr	Pro Glu Val Glu Thr 535	Val Lys Gly 520 Lys	His Lys 505 Thr	Lys 490 Met Ile Arg	475 Asp Arg Met	Met Met Glu Glu Arg 540	Ile Ser Glu 525 Glu	Arg Ser 510 His	Trp 495 Pro Asn Gln	480 11e Thr Phe
465 Gln Leu Ser Arg Leu 545	Ala Asn Lys Pro Val 530 Pro	Ala Thr Val 515 Gln Asp	Pro Phe 500 Ala Gly Cys	Tyr 485 Asn Glu Thr	470 Leu Ala Thr Lys Glu 550	Pro Glu Val Glu Thr 535 Lys	Val Lys Gly 520 Lys	His Lys 505 Thr Leu Ser	Lys 490 Met Ile Arg	Arg Arg Met Gly Leu 555	Met Met Glu Glu Arg 540	Ile Ser Glu 525 Glu Cys	Arg Ser 510 His Lys	Trp 495 Pro Asn Gln Lys	480 11e Thr Phe Arg

<210> 3713

<211> 617

<212> PRT

## <213> Homo sapiens

<400> 3713															
Met	Gly	Glu	Thr	Leu	Lys	Asp	Pro	Val	11e	Lys	Arg	Cys	Cys	Glu	Ala
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Pro	Asn	Arg	Leu	Ser	Asp	Leu	Gln	Asn	Val	Ser	Glu	Gly	Leu	Glu	Lys
			20					25					30		
Cys	Gln	Lys	Ser	Leu	Asn	Asp	Tyr	Leu	Asp	Ser	Lys	Arg	Asn	Ala	Phe
		35					40					45			
Pro	Arg	Phe	Phe	Phe	Ile	Ser	Asp	Asp	Glu	Leu	Leu	Ser	Ile	Leu	Gly
	50					55					60				
Ser	Ser	Asp	Pro	Leu	Cys	Va]	Gln	Glu	His	Met	He	Lys	Met	Tyr	Asp
65					70					75					80
Asn	He	Ala	Ser	Leu	Arg	Phe	Asn	Asp	Gly	Asp	Ser	Gly	Glu	Lys	Leu
				85					90					95	
Val	Ser	Ala	Met	Ile	Ser	Ala	Glu	Gly	Glu	Val	Met	Glu	Phe	Arg	Lys
			100					105					110		
lle	Val	Arg	Ala	Glu	Gly	Arg	Val	Glu	Asp	Trp	Met	Thr	Ala	Val	Leu
		115					120					125			
Asn	Glu	Met	Arg	Arg	Thr	Asn	Arg	Leu	lle	Thr	Lys	Glu	Ala	He	Phe
	130					135					140				
Arg	Tyr	Cys	Glu	Asp	Arg	Ser	Arg	Val	Asp	Trp	Met	Leu	Leu	Tyr	Gln
145					150					155					160
Gly	Met	Val	Val	Leu	Ala	Ala	Ser	Gln	Val	Trp	Trp	Thr	Trp	Glu	Val
				165					170					175	
Glu	Asp	Val	Phe	His	Lys	Ala	Gln	Lys	G1 y	Glu	Lys	Gln	Ala	Met	Lys
			180					185					190		
Asn	Tyr	Gly	Arg	Lys	Met	His	Arg	Gln	He	Asp	Glu	Leu	Val	Thr	Arg
		195					200					205			
He	Thr	Met	Pro	Leu	Ser	Lys	Asn	Asp	Arg	Lys	Lys	Tyr	Asn	Thr	Val
	210					215					220				
Leu	lle	He	Asp	Val	His	Ala	Arg	Asp	He	Va]	Asp	Ser	Phe	He	Arg
225					230					235					240
Gly	Ser	He	Leu	Glu	Ala	Arg	Glu	Phe		Trp	Glu	Ser	G1n	Leu	Arg
				245					250					255	
Phe	Tyr	Trp	Asp	Arg	Glu	Pro	Asp	Glu	Leu	Asn	lle	Arg	Gln	Cys	Thr

			260					265					270		
Gly	Thr		Gly	Tyr	Gly	Tyr	Glu	Tyr	Met	Gly	Leu	Asn	Gly	Arg	Leu
		275					280					285			
Val	He	Thr	Pro	Leu	Thr	Asp	Arg	He	Tyr	Leu	Thr	Leu	Thr	Gln	Ala
	290					295					300				
Leu	Ser	Met	Tyr	Leu	Gly	Gly	Ala	Pro	Ala	Gly	Pro	Ala	Gly	Thr	Gly
305					310					315					320
Lys	Thr	Glu	Thr	Thr	Lys	Asp	Leu	Ala	Lys	Ala	Leu	Gly	Leu	Leu	Cys
				325					330					335	
Val	Val	Thr	Asn	Cys	Gly	Glu	Gly	Met	Asp	Tyr	Arg	Ala	Val	Gly	Lys
			340					345					350		
He	Phe	Ser	Gly	Leu	Ala	Gln	Cys	Gly	Ala	Trp	Gly	Cys	Phe	Asp	Glu
		355					360					365			
Phe	Asn	Arg	He	Asp	Ala	Ser	Val	Leu	Ser	Val	lle	Ser	Ser	Gln	He
	370					375					380				
Gln	Thr	He	Arg	Asn	Ala	Leu	He	His	Gln	Leu	Thr	Thr	Phe	Gln	Phe
385					390					395					400
Glu	Gly	Gln	Glu	Ile	Ser	Leu	Asp	Ser	Arg	Met	Gly	lle	Phe	Ile	Thr
				405					410					415	
Met	Asn	Pro	Gly	Tyr	Ala	Gly	Arg	Thr	Glu	Leu	Pro	Glu	Ser	Val	Lys
			420					425					430		
Ala	Leu	Phe	Arg	Pro	Val	Val	Val	He	Val	Pro	Asp	Leu	G1n	Gln	11e
		435					440					445			
Cys	Glu	He	Met	Leu	Phe	Ser	Glu	Gly	Phe	Leu	Glu	Ala	Lys	Thr	Leu
	450					455					460				
Ala	Lys	Lys	Met	Thr	Val	Leu	Tyr	Lys	Leu	Ala	Arg	Glu	Gln	Leu	Ser
465					470					475					480
Lys	Gln	Tyr	His	Tyr	Asp	Phe	Gly	Leu	Arg	Ala	Leu	Lys	Ser	Val	Leu
				485					490					495	
Val	Met	Ala	Gly	Glu	Leu	Lys	Arg	Gly	Ser	Ser	Asp	Leu	Arg	Glu	Asp
			500					505					510		
Val	Val	Leu	Met	Arg	Ala	Leu	Arg	Asp	Met	Asn	Leu	Pro	Lys	Phe	Val
		515					520					525			
Leu	G1u	Asp	Val	Pro	Leu	Phe	Leu	Gly	Leu	Пe	Ser	Asp	Leu	Phe	Pro
	530					535					540				

<210> 3714

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3714

130

Met Gln Phe Ser Lys Pro Arg Lys Leu Val Asn Thr Ile Asn Pro Gly 1 5 10 Ala Arg Phe Met Thr Thr Ala Met Tyr Asp Ala Arg Glu Ala lle lle 25 Pro Gly Ser Val Tyr Asp Arg Ser Ser Gln Gly Arg Pro Ser Ser Met 35 40 45 Tyr Phe Gln Thr His Asp Gln 11e Gly Met 11e Ser Ala Gly Pro Ser 55 His Val Ala Ala Met Asn Ile Pro Ile Pro Phe Asn Leu Val Met Pro 70 75 Pro Met Pro Pro Gly Tyr Phe Gly Gln Ala Asn Gly Pro Ala Ala 85 90 95 Gly Glu His Leu Trp Leu Arg Leu Gly Val Ala Leu Leu Arg Ala Leu 105 Glu Gly Val Leu Val Cys Glu Ala Leu Ala Ser Phe Gly Ser Pro Trp 115 120 125

Thr Ala Val Phe Gln Gly Glu Ala Pro Arg Lys Ala Arg Leu Val Val

140

Gly Asp Ala Arg Arg Thr Ala Leu Gly Phe Leu Asp Pro Ala Arg Leu

145

150

155

160

Thr Ser Pro Thr Ala Lys Pro Ala Arg Met Trp Arg His Ser Pro Ser

165

170

175

Leu Arg Ala Pro 180

<210> 3715

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3715

Met Pro Pro Cys Ile Gln Pro Arg Lys Tyr Trp Thr Leu Gln Arg Pro

1 5 10 15

Val Cys Ser Val Asn Leu Ala Pro Ser Gly Pro Pro Glu Thr His Arg 20 25 30

Val Ser Arg Ala Val Gly Met Pro Leu Ser Leu Thr His Pro Thr Leu  $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$ 

Phe Gln Ala Arg His Pro Ser Leu Phe Leu Thr Leu Asp Tyr Val Leu 50 55 60

Val Tyr Pro Leu Thr Ser Gly Ser Val Ser Gln Leu Ile Ile Ser Leu 65 70 75 80

Ser His Ser Leu Ser His Ser Pro Ser Arg Ser His Ser Leu Ala Leu 85 90 95

Leu Arg Phe Thr Arg Leu Ala Ile Ser Thr Ser Asp Thr Leu Pro 100 105 110

<210> 3716

〈211〉 138

<212> PRT

<213> Homo sapiens

<400> 3716

Met Thr Leu Gly Cys Asp Leu Gly Gln Met Val Ser Arg Glu Thr Ala 1 5 10 Gly Asn Cys His His Ser Ile Ser Leu Arg Thr Pro Met Asp Cys Cys 20 25 30 Ala Gln Arg Arg Pro His Gly Tyr His Ser Gly Cys Gln Trp Pro His Thr Val Ser Thr Phe Pro Gly Glu Leu Arg Ser Arg Leu Trp Val Trp 55 His Phe Ala Ser Val Pro Arg Val Lys Cys Ala Ser Ala Ser Phe Leu 75 70 Glu Asp Arg Val Cys Asp Phe Cys Asp Ser Ala Leu Ala Gln Asp Ser 90 Arg Asp His Val His Ile Cys Arg Pro Ser Arg Glu Gln Arg Glu Thr 100 105 110 Phe Arg Ala Val Ile Lys Thr Ser Gln Ala Glu Asn Ser Leu Cys Pro 115 120 125 His Trp His Thr Trp Cys Leu Tyr Phe His 130 135

<210> 3717

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3717

Met Leu His Gln Ser Gly Lys Phe Leu 11e Pro Asp 11e Lys Glu Glu
1 5 10 15

Glu Lys Ser Tyr Gln Val 11e Arg Trp Phe Ser Pro Glu Asp His Gln
20 25 30

Lys Arg lle Lys Lys His Phe Asp Ser Tyr Ile Glu Thr Ala Leu Asp 35 40 45

Gly Arg Lys Glu Ser Glu Ala Leu Val Lys Leu Met Glu Ile Phe Gly
50 55 60

Thr Gln Cys Ser Tyr Leu Leu Ser Arg Lys Asp Ile Met Asp Ser Leu 65 70 75 80

Lys Asn Glu Asn Tyr Asp Leu Val Phe Val Glu Ala Phe Asp Phe Cys Ser Phe Leu Ile Ala Glu Lys Leu Val Lys Pro Phe Val Ala Ile Leu Pro Thr Thr Phe Gly Ser Leu Asp Phe Gly Leu Pro Ser Pro Leu Ser Tyr Val Pro Val Phe Pro Ser Leu Leu Thr Asp His Met Asp Phe Trp Gly Arg Val Lys Asn Phe Leu Met Phe Phe Ser Phe Ser Arg Ser Gln Trp Asp Met Gln Ser Thr Phe Asp Asn Thr Ile Lys Glu His Phe Pro Glu Gly Ser Arg Pro Val Leu Ser His Leu Leu Leu Lys Ala Glu Leu Trp Phe Val Asn Ser Asp Phe Ala Phe Asp Phe Ala Arg Pro Leu Leu Pro Asn Thr Val Tyr lle Gly Gly Leu Met Glu Lys Pro lle Lys Pro Val Pro Gln Asn Gly Gln Pro Ala Leu Phe Thr Thr Pro Ser Leu Phe Ser Ser Glv Val Tyr Pro Glu Pro Leu Arg Trp Leu 

<210> 3718

<211> 392

<212> PRT

<213> Homo sapiens

<400> 3718

Met Gln Ser Gly Gly Ser Leu Pro Phe Cys Cys Tyr Leu Pro Ser Val Ser Ser Gln Leu Leu Leu Arg Glu Ser Tyr Cys Asn Phe 11e Lys Arg Thr Gln Cys Lys Ser Ser Lys Leu Met Phe Ser Arg Asp Phe Leu Ser 

Gly	50	Lys	lyr	Cys	Arg	55	Leu	Leu	rp	Ala	Leu 60	Pro	Asp	HIS	Pro
Arg	Arg	Arg	Gly	Pro	Thr	Ser	Ala	Asn	Ala	Leu	Pro	Leu	Ser	Ala	Glu
65			·		70					75					80
Leu	Val	Met	Leu	Leu	Glu	Trp	Trp	Ser	Cys	Thr	Glu	Cys	Thr	Leu	Phe
				85					90					95	
Thr	Asp	Gln	Ala	Thr	Val	Glu	Arg	Phe	Gly	Lys	Glu	His	Ala	Val	He
			100					105					110		
lle	Leu	Asn	His	Asn	Phe	Glu	11e	Asp	Phe	Leu	Cys	Gly	Trp	Thr	Met
		115					120					125			
Cys	Glu	Arg	Phe	Gly	Val	Leu	G1 y	Ser	Ser	Lys	Val	Leu	Ala	Lys	Lys
	130					135					140				
Glu	Leu	Leu	Tyr	Val	Pro	Leu	11e	Gly	Trp	Thr	Trp	Tyr	Phe	Leu	Glu
145					150					155					160
He	Val	Phe	Cys	Lys	Arg	Lys	Trp	Glu	Glu	Asp	Arg	Asp	Thr	Val	Val
				165					170					175	
Glu	G1y	Leu	Arg	Arg	Leu	Ser	Asp	Tyr	Pro	Glu	Tyr	Met	Trp	Phe	Leu
			180					185					190		
Leu	Tyr	Cys	Glu	Gly	Thr	Arg	Phe	Thr	Glu	Thr	Lys	His	Arg	Val	Ser
		195					200					205			
Met	Glu	Val	Ala	Ala	Ala	Lys	Gly	Leu	Pro	Val	Leu	Lys	Tyr	His	Leu
	210					215					220				
Leu	Pro	Arg	Thr	Lys	Gly	Phe	Thr	Thr	Ala	Val	Lys	Cys	Leu	Arg	Gly
225					230					235					240
Thr	Val	Ala	Ala	Val	Tyr	Asp	Val	Thr	Leu	Asn	Phe	Arg	Gly	Asn	Lys
				245					250					255	
Asn	Pro	Ser	Leu	Leu	G1 y	He	Leu	Tyr	G1 y	Lys	Lys	Tyr	Glu	Ala	Asp
			260					265					270		
Met	Cys	Val	Arg	Arg	Phe	Pro	Leu	Glu	Asp	Пe	Pro	Leu	Asp	Glu	Lys
		275					280					285			
Glu	Ala	Ala	Gln	Trp	Leu	His	Lys	Leu	Tyr	Gln	Glu	Lys	Asp	Ala	Leu
	290					295					300				
Gln	Glu	He	Tyr	Asn	Gln	Lys	Gly	Met	Phe	Pro	Gly	Glu	Gln	Phe	Lys
305					310					315					320
Pro	Ala	Arg	Arg	Pro	Trp	Thr	Leu	Leu	Asn	Phe	Leu	Ser	Trp	Ala	Thr

lle Leu Leu Ser Pro Leu Phe Ser Phe Val Leu Gly Val Phe Ala Ser Gly Ser Pro Leu Leu Ile Leu Thr Phe Leu Gly Phe Val Gly Ala Ala Ser Phe Gly Val Arg Arg Leu Ile Gly Val Thr Glu Ile Glu Lys Gly Ser Ser Tyr Gly Asn Gln Glu Phe <210> 3719 <211> 148 <212> PRT <213> Homo sapiens <400> 3719 Met Asn Tyr Leu Phe Leu Gly Gly Cys Leu His Glu Pro Val Ser His Thr Phe Ala Leu Val Ala Gln Ala Gly Val Gln Trp Arg Asn Leu Gly Ser Pro Gln Pro Pro Pro Pro Arg Phe Lys Gln Phe Ser Arg Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg His Ala Pro Ser Arg Leu Ala Asn Phe Phe Phe Phe Phe Val Phe Leu Val Glu Met Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser Ala Cys Gln Ser Ala Gly lle Thr Ser Val Ser His His Ala Gln Pro He Ser Leu Phe Ser Lys Lys Lys Gly Gly Arg Phe Leu Lys He Phe 

Ser Ala Phe Ala

145

<210> 3720

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3720

Met Glu Ala Glu Ala Trp Gly Ser Gln Ala Arg Ala Gly Leu Gly Ala

1 5 10 1.

Ala Glu Asn Cys Leu Glu Gly Gly Asn Gln Ala Phe Leu Leu Glu Arg 20 25 30

Val Thr Gly Thr Lys Gly Arg Gly Gln Gly Gln Pro Leu Glu Arg Ala 35 40 45

Gly Glu Glu Gly Glu Ala Gly Gly Asp Pro Arg Arg Asp Pro Gly Glu
50 55 60

Val Val Ala Lys Ser Arg Val Arg Ala Arg Pro His Leu Ser Leu Tyr 65 70 75 80

Pro Ala Leu Pro Gly Val Ala Leu Ala Leu Leu Cys Cys Pro Leu Gln 85 90 95

Asp Arg Cys Leu Arg Leu Val Pro Ala Cys Pro Thr Ala Gly Pro Gln
100 105 110

His Pro Gln Val Leu Pro Trp Ala Leu Gln Lys Gln Gly Val Val Arg 115 120 125

Ser Gly Pro Trp Ala Thr Glu Glu Met Val Trp Gly Thr Arg Thr Gly 130 135 140

Val Gly Gly Leu Thr Ala Val Phe

145 150

<210> 3721

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3721 Met Asn Leu Pro His Cys Ser Gly Asn Ser Arg Gly Arg Pro Pro Pro 10 Gly Pro Ala Met Arg Arg Asp Gly Gln Ala Gly Pro Ala Leu Gly Gly 20 25 30 Gly Arg Pro Pro Pro His Thr Tyr Leu Glu Arg Pro Glu Ala Gln Leu 40 Lys Gln Tyr Leu Val Phe Gly Gly Asp Ala Asp Gly Lys His Gly Lys 50 55 60 His His Val Val Asp Ala Glu Gln Arg Asp Lys Gln Glu Arg Gly Leu 70 75 Gly Gln Pro Pro Ala Gln Lys Glu Met Ser Gln Leu Ser Cys Trp Thr 90 Leu Gly Pro Ser Ala Ser Leu Ala Gly Ser Phe Ser Gly Gly Gly Ser 100 105 Trp Val Trp Glu Gly Leu His Thr Ser Ser Pro Leu Leu Glu Ser Pro 120 125 Pro Asn Lys Lys Asn His Cys Phe Phe Thr Phe Met Ser Glu Ala Pro 130 135 140 Val His Ile 145 <210> 3722 <211> 106 <212> PRT <213> Homo sapiens <400> 3722 Met Asp Asn Pro Leu Leu Lys Tyr Ser Ala Lys Asp Tyr Phe Phe Lys 10 Ala Ala Leu Cys His Phe Ile Val Asp Glu Leu Asn Ala Lys Leu Ala 25

Leu Glu Lys Tyr Glu Glu Met Phe Pro Ala Phe Thr Asp Ser Arg Glu

Cys Lys Leu Leu Lys Lys Leu Leu Glu Ala His Glu Glu Gln Asn Ser

45

40

Glu Ala Tyr Thr Glu Ala Val Lys Glu Phe Asp Ser Ile Ser Arg Leu Asp Gln Trp Leu Thr Thr Met Leu Leu Arg Ile Lys Lys Ser Ile Gln Gly Asp Gly Glu Gly Asp Gly Asp Leu Lys <210> 3723 <211> 532 <212> PRT <213> Homo sapiens <400> 3723 Met Ser Ile His Leu Arg Glu Asp Ser Ser Gln Thr His Val Leu Met Met Lys Gly Ala Pro Glu Arg Ile Leu Glu Phe Cys Ser Thr Phe Leu Leu Asn Gly Gln Glu Tyr Ser Met Asn Asp Glu Met Lys Glu Ala Phe Gln Asn Ala Tyr Łeu Glu Leu Gly Gly Leu Gly Glu Arg Val Leu Gly Phe Cys Phe Leu Asn Leu Pro Ser Ser Phe Ser Lys Gly Phe Pro Phe Asn Thr Asp Glu IIe Asn Phe Pro Met Asp Asn Leu Cys Phe Val Gly Leu lle Ser Met Ile Asp Pro Pro Arg Ala Ala Val Pro Asp Ala Val Ser Lys Cys Arg Ser Ala Gly 11e Lys Val 11e Met Val Thr Gly Asp

His Pro 11e Thr Ala Lys Ala 11e Ala Lys Gly Val Gly 11e 11e Ser

Glu Gly Thr Glu Thr Ala Glu Glu Val Ala Ala Arg Leu Lys lle Pro

lle Ser Lys Val Asp Ala Ser Ala Ala Lys Ala lle Val Val His Gly

				165					170					175	
Ala	Glu	Leu	Lys	Asp	Ile	Gln	Ser	Lys	Gln	Leu	Asp	Gln	lle	Leu	Gln
			180					185					190		
Asn	His	Pro	Glu	He	Va]	Phe	Ala	Arg	Thr	Ser	Pro	Gln	Gln	Lys	Leu
		195					200					205			
lle	He	Val	Glu	Gly	Cys	Gln	Arg	Leu	Gly	Ala	Val	Val	Ala	Val	Thr
	210					215					220				
Gly	Asp	Gly	Val	Asn	Asp	Ser	Pro	Ala	Leu	Lys	Lys	Ala	Asp	He	Gly
225					230					235					240
Ile	Ala	Met	Gly	Ile	Ser	Gly	Ser	Asp	Val	Ser	Lys	Gln	Ala	Ala	Asp
				245					250					255	
Met	He	Leu	Leu	Asp	Asp	Asn	Phe	Ala	Ser	He	Val	Thr	Gly	Val	Glu
			260					265					270		
Glu	Gly	Arg	Leu	He	Phe	Asp	Asn	Leu	Lys	Lys	Ser	He	Met	Tyr	Thr
		275					280					285			
Leu	Thr	Ser	Asn	Ile	Pro	Glu	He	Thr	Pro	Phe	Leu	Met	Phe	He	He
	290					295					300				
Leu	Gly	Ile	Pro	Leu	Pro	Leu	Gly	Thr	Ile	Thr	He	Leu	Cys	He	Asp
305					310					315					320
Leu	Gly	Thr	Asp	Met	Val	Pro	Ala	He	Ser	Leu	Ala	Tyr	Glu	Ser	Ala
				325					330					335	
Glu	Ser	Asp	He	Met	Lys	Arg	Leu	Pro	Arg	Asn	Pro	Lys	Thr	Asp	Asn
			340					345					350		
Leu	Val	Asn	His	Arg	Leu	Пе	Gly	Met	Ala	Tyr	Gly	G]n	11e	Gly	Met
		355					360					365			
He	Gln	Ala	Leu	Ala	Gly	Phe	Phe	Thr	Tyr	Phe	Val	He	Leu	Ala	Glu
	370					375					380				
Asn	Gly	Phe	Arg	Pro	Val	Asp	Leu	Leu	Gly	He	Arg	Leu	His	Trp	Glu
385					390					395					400
Asp	Lys	Tyr	Leu	Asn	Asp	Leu	Glu	Asp	Ser	Tyr	Gly	Gln	Gln	Trp	Thr
				405	·				410					415	
Tyr	Glu	Gln	Arg	Lys	Val	Val	Glu	Phe	Thr	Cys	Gln	Thr	Ala	Phe	Phe
			420					425					430		
Val	Thr	lle	Va1	Val	Val	Gln	Trp	Ala	Asp	Leu	He	11e	Ser	Lys	Thr
		435					440					445			
Arg	Arg	Asn	Ser	Leu	Phe	Gln	Gln	Gly	Met	Arg	Asn	Lys	Val	Leu	He

Phe Gly Ile Leu Glu Glu Thr Leu Leu Ala Ala Phe Leu Ser Tyr Thr Pro Gly Met Asp Val Ala Leu Arg Met Tyr Pro Leu Lys Ile Thr Trp Trp Leu Cys Ala Ile Pro Tyr Ser Ile Leu Ile Phe Val Tyr Asp Glu Ile Arg Lys Leu Leu Ile Arg Gln His Pro Asp Gly Trp Val Glu Arg Glu Thr Tyr Tyr <210> 3724 <211> 1139 <212> PRT <213> Homo sapiens <400> 3724 Met Ala Gly Ile Ile Lys Lys Gln Ile Leu Lys His Leu Ser Arg Phe Thr Lys Asn Leu Ser Pro Asp Lys Ile Asn Leu Ser Thr Leu Lys Gly Glu Gly Glu Leu Lys Asn Leu Glu Leu Asp Glu Glu Val Leu Gln Asn Met Leu Asp Leu Pro Thr Trp Leu Ala Ile Asn Lys Val Phe Cys Asn Lys Ala Ser Ile Arg Ile Pro Trp Thr Lys Leu Lys Thr His Pro Ile Cys Leu Ser Leu Asp Lys Val Ile Met Glu Met Ser Thr Cys Glu Glu Pro Arg Ser Pro Asn Gly Pro Ser Pro Ile Ala Thr Ala Ser Gly Gln Ser Glu Tyr Gly Phe Ala Glu Lys Val Val Glu Gly 11e Ser Val Ser 

Val Asn Ser Ile Val Ile Arg Ile Gly Ala Lys Ala Phe Asn Ala Ser

	130					135					140				
Phe	Glu	Leu	Ser	Gln	Leu	Arg	Ile	Tyr	Ser	Val	Asn	Ala	His	Trp	Glu
145					150					155					160
His	Gly	Asp	Leu	Arg	Phe	Thr	Arg	He	Gln	Asp	Pro	Gln	Arg	Gly	Glu
				165					170					175	
Val	Leu	Thr	Phe	Lys	Glu	lle	Asn	Trp	Gln	Met	He	Arg	He	Glu	Ala
			180					185					190		
Asp	Ala	Thr	Gln	Ser	Ser	His	Leu	Glu	lle	Met	Cys	Ala	Pro	Val	Arg
		195					200					205			
Leu	Пe	Thr	Asn	Gln	Ser	Lys	Ile	Arg	Val	Thr	Leu	Lys	Arg	Met	Leu
	210					215					220				
Lys	Asp	Cys	Asn	Val	Ile	Ala	Thr	Lys	Leu	Val	Leu	lle	Leu	Asp	Asp
225					230					235					240
Leu	Leu	Trp	Val	Leu	Thr	Asp	Pro	Gln	Leu	Lys	Ala	Met	Val	Gln	Tyr
				245					250					255	
Ala	Lys	Ser	Leu	Ser	Glu	Ala	He	Glu	Lys	Ser	Thr	Glu	Gln	Arg	Lys
			260					265					270		
Ser	Met		Pro	Glu	Pro	Thr		Ser	Ser	Thr	Val		Ala	Ser	Ala
		275					280					285			
Gln		Val	Lys	Thr	Thr	Gln	Thr	Ser	Asn	Ala		Asp	Val	Asn	Asp
	290				D.	295		D1		., .	300	0.1	m.		
	He	Val	Lys	Leu		Asn	Asp	Phe	Asp		Lys	Glu	Thr	Ser	
305		W. 1	т1.	C	310	1	Δ	1	112 .	315	C	Δ	Α	11.	320
HIS	Leu	vai	11e		HIS	Leu	Asp	Leu		116	Cys	Asp	Asp		1118
A16	Lva	C1	Luc	325	Son	Asn	Ara	Ara	330	Thr	Cl <sub>v</sub>	Clv	Ala	335 Mot	C1n
мта	Lys	610	340	Glu	ser	ASII	Arg	345	116	1111	GIY	GIY	350	мес	6111
ا ما	Sor	Pho		Gln	Lou	Thr	116		Tur	Tur	Pro	Tyr		Lve	Ala
LCu	501	355	1111	OIII	Leu	1111	360	пор	1 y 1	1 ) 1	110	365	111.0	Lys	Mid
Glv	Asp		Cvs	Asn	His	Trp		Tvr	Phe	Ser	Asp		Thr	Lvs	Thr
0.1 )	370		0,0	71011		375		- , -		001	380		• • • •	23,0	
Lvs		Glv	Trp	Ala	Asn	Glu	Leu	Leu	His	Glu		Glu	Cvs	Asn	Val
385		- 2	1		390					395			•		400
	Met	Leu	Lys	Gln		Val	Lys	Asp	His		Val	Gly	Ser	Pro	Pro
				405					410					415	
Luc	Son	Dno	Tha	u;	110	Con	Dago	Cln	u; o	Thu	Cln	The	C1	Lvc	Aon

			420					425					430		
Tyr	Pro	Leu	Lys	Gly	Thr	Cys	Arg	Thr	Pro	Ser	Val	Leu	Ser	Gln	Gln
		435					440					445			
Ser	Lys	Ala	Lys	Leu	Met	Ser	Ser	Ser	Val	Val	Val	Arg	Leu	Ala	Asp
	450					455					460				
Phe	Asn	He	Tyr	Gln	Val	Ser	Thr	Ala	Glu	Gln	Cys	Arg	Ser	Ser	Pro
465					470					475					480
Lys	Ser	Met	He	Cys	Cys	Asn	Lys	Lys	Ser	Leu	Týr	Leu	Pro	Gln	Glu
				485					490					495	
Met	Ser	Ala	Val	Tyr	Ile	Glu	Phe	Thr	Glu	Tyr	Tyr	Tyr	Pro	Asp	Gly
			500					505					510		
Lys	Asp	Phe	Pro	He	Pro	Ser	Pro	Asn	Leu	Tyr	Ser	Gln	Leu	Λsn	Ala
		515					520					525			٠
Leu	Gln	Phe	Thr	Val	Asp	Glu	Arg	Ser	11e	Leu	Trp	Leu	Asn	Gln	Phe
	530					535					540				
Leu	Leu	Asp	Leu	Lys	G1n	Ser	Leu	Asn	Gln	Phe	Met	Ala	Val	Tyr	Lys
545					550					555					560
Leu	Asn	Asp	Asn	Ser	Lys	Ser	Asp	Glu	His	Val	Asp	Val	Arg	Val	Asp
				565					570					575	
Gly	Leu	Met	Leu	Lys	Phe	Val	He	Pro	Ser	Glu	Val	Lys	Ser	Glu	Cys
			580					585					590		
His	Gln	Asp	Gln	Pro	Arg	Ala	lle	Ser	lle	Gln	Ser	Ser	Glu	Met	He
		595					600					605			
Ala		Asn	Thr	Arg	His		Pro	Asn	Cys	Arg	His	Ser	Asp	Leu	Glu
	610					615					620				
Ala	Leu	Phe	Gln	Asp	Phe	Lys	Asp	Cys	Asp	Phe	Phe	Ser	Lys	Thr	
625					630					635					640
Thr	Ser	Phe	Pro		Ser	Cys	Asp	Asn		Asn	Leu	Leu	His		He
	6.1			645		0.1	6.1		650				0.1	655	<b></b>
Phe	GIn	Arg		Ala	H1s	Glu	GIn		Thr	Lys	Met	His		He	lyr
	0.1		660	T)	Б	0.1	,	665	,		T)	,	670	T)	c
Lys	GIy	Asn	He	Thr	Pro	Gin		Asn	Lys	Asn	lhr		Lys	Ihr	Ser
4.3	. 1	675			T		680	Tr.	DI	C	61	685	Tr.	1.1	
Ala		Thr	Asp	val	Гrр		vai	lyr	rne	ser		rne	rp	116	Asp
T	690	Gly	Mot	1	Sar	695	1 ,	C1	A 22 ~	Duc	700	Sa.	Dha	Vol	A a.c.
1 1/1	1111	1 T 1 V	CALLEY 1	1 V C	2 C) F	1 1 1 17	1 1/10	1 1 1 17	W L. 12	E 1.()	1 1 (-)	210 F	E (14)	V >4 1	44 C D

705					710					715					720
Ser	Phe	Pro	Leu	Ser	Ile	Trp	Ile	Cys	Gln	Pro	Thr	Arg	Tyr	Ala	Glu
				725					730					735	
Ser	Gln	Lys	Glu	Pro	Gln	Thr	Cys	Asn	Gln	Val	Ser	Leu	Asn	Thr	Ser
			740					745					750		
Gln	Ser	Glu	Ser	Ser	Asp	Leu	Ala	Gly	Arg	Leu	Lys	Arg	Lys	Lys	Leu
		755					760					765			
Leu	Lys	Glu	Tyr	Tyr	Ser	Thr	Glu	Ser	Glu	Pro	Leu	Thr	Asn	Gly	Gly
	770					775					780				
Gln	Lys	Pro	Ser	Ser	Ser	Asp	Thr	Phe	Phe	Arg	Phe	Ser	Pro	Ser	Ser
785					790					795					800
Ser	Glu	Ala	Asp	He	His	Leu	Leu	Val	His	Val	His	Lys	His	Val	Ser
				805					810					815	
Met	Gln	He	Asn	His	Tyr	Gln	Tyr	Leu	Leu	Leu	Leu	Phe	Leu	His	Glu
			820					825					830		
Ser	Leu	He	Leu	Leu	Ser	Glu	Asn	Leu	Arg	Lys	Asp	Val	Glu	Ala	Val
		835					840					845			
Thr	Gly	Ser	Pro	Ala	Ser	Gln	Thr	Ser	Ile	Cys	Ile	Gly	Ile	Leu	Leu
	850					855					860				
Arg	Ser	Ala	Glu	Leu	Ala	Leu	Leu	Leu	His	Pro	Val	Asp	Gln	Ala	Asn
865					870					875					880
Thr	Leu	Lys	Ser	Pro	Val	Ser	Glu	Ser	Val	Ser	Pro	Val	Val	Pro	Asp
				885					890					895	
Tyr	Leu	Pro	Thr	Glu	Asn	Gly	Asp	Phe	Leu	Ser	Ser	Lys	Arg	Lys	Gln
			900					905					910		
lle	Ser	Arg	Asp	lle	Asn	Arg	He	Arg	Ser	Val	Thr	Val	Asn	His	Met
		915					920					925			
Ser	Asp	Asn	Arg	Ser	Met	Ser	Val	Asp	Leu	Ser	His	He	Pro	Leu	Lys
	930					935					940				
Asp	Pro	Leu	Leu	Phe	Lys	Ser	Ala	Ser	Asp	Thr	Asn	Leu	Gln	Lys	Gly
945					950					955					960
He	Ser	Phe	Met	Asp	Tyr	Leu	Ser	Asp	Lys	His	Leu	Gly	Lys	Пe	Ser
				965					970					975	
Glu	Asp	Glu	Ser	Ser	Gly	Leu	Val	Tyr	Lys	Ser	Gly	Ser	Gly	Glu	He
			980					985					990		
Gly	Ser	Glu	Thr	Ser	Asp	Lys	Lys	Asp	Ser	Phe	Tyr	Thr	Asp	Ser	Ser

1000 1005 995 Ser Ile Leu Asn Tyr Arg Glu Asp Ser Asn Ile Leu Ser Phe Asp Ser 1010 1015 1020 Asp Gly Asn Gln Asn Ile Leu Ser Ser Thr Leu Thr Ser Lys Gly Asn 1030 1035 1025 1040 Glu Thr Ile Glu Ser Ile Phe Lys Ala Glu Asp Leu Leu Pro Glu Ala 1045 1050 Ala Ser Leu Ser Glu Asn Leu Asp Ile Ser Lys Glu Glu Thr Pro Pro 1060 1065 1070 Val Arg Thr Leu Lys Ser Gln Ser Ser Leu Ser Gly Lys Pro Lys Glu 1080 1085 1075 Arg Cys Pro Pro Asn Leu Ala Pro Leu Cys Val Ser Tyr Lys Asn Met 1095 1100 Lys Arg Ser Ser Ser Gln Met Ser Leu Asp Thr 11e Ser Leu Asp Ser 1110 1115 Met Ile Leu Glu Glu Gln Leu Leu Glu Ser Asp Gly Ser Asp Ser His 1125 1130 1135 Met Phe Leu

<210> 3725

<211> 317

<212> PRT

<213> Homo sapiens

<400> 3725

Met Ser Pro Ser Val Thr Ala Gln Pro Leu Asp Leu Gly Leu Thr Ile
1 5 10 15

Thr Pro Glu Pro Thr Thr Glu Val Glu His Ser Thr Pro Leu Lys Lys
20 25 30

lle Pro Pro Lys His Pro Lys Val Thr Leu Pro His Pro Asp Gln Val 35 40 45

Gln Thr Leu His Ser Asn Leu Thr Gln Val Thr Val Gln Pro Leu Asp 50 55 60

Leu Glu Leu Thr Leu Thr Pro Glu Ser Thr Met Glu Val Glu Pro Phe

65					70					75					80
Pro	Thr	Met	Gln	Lys	Thr	Pro	Thr	Gln	Pro	Pro	Glu	Leu	Arg	Lys	Glu
				85					90					95	
Val	Val	Ala	Gln	Pro	Pro	Val	Tyr	Tyr	Glu	Thr	Ser	Met	Pro	Thr	Arg
			100					105					110		
Gly	Gln	Asp	Gln	Λla	Gln	His	Pro	Thr	Ser	Pro	Arg	Val	Thr	Val	Gln
		115					120					125			
Pro	Leu	Asp	Leu	Gly	Leu	Thr	lle	Thr	Pro	Glu	Ser	Ile	Thr	Lys	Val
	130					135					140				
Glu	Pro	Ser	Thr	Ala	Leu	Met	Thr	Thr	Ala	Pro	Pro	Pro	Glu	His	Leu
145					150					155					160
Glu	Val	Thr	Leu	Pro	Pro	Pro	Asp	Lys	Gly	Gln	Ala	Gln	His	Ser	Asn
				165					170					175	
Leu	Thr	Gln	Val	Thr	Va]	Gln	Pro	Leu	Asp	Leu	Glu	Leu	Thr	lle	Thr
			180					185					190		
He	Glu	Pro	Thr	He	Asp	Val	Lys	Pro	Ser	Pro	Thr	Thr	Glu	Glu	Thr
		195					200					205			
Ser	Thr	Gln	Ser	Pro	Asp	Leu	Gly	Leu	Ala	lle	Thr	Pro	Glu	Pro	Thr
	210					215					220				
Thr	Glu	He	G1y	Tyr	Ser	Thr	Ala	Leu	Glu	Lys	Thr	He	Ala	Pro	Arg
225					230					235					240
Pro	Asp	Gln	Val	Gln	Thr	Gln	His	Arg	Asn	Leu	Thr	Glu	Val	Thr	Gly
				245					250					255	
Pro	Pro	Thr	Glu	Leu	Glu	Pro	Thr	Gln	Asp	Ser	Leu	Val	Gln	Ser	Glu
			260					265					270		
Asn	Tyr	Ala	Gln	Asn	Lys	Ala	Leu	Thr	Ala	Pro	Glu	Glu	Gln	Lys	Ala
		275					280					285			
Ser	Thr	Ser	Thr	Asn	He	Cys	Asp	Leu	Cys	Thr	Cys	Gly	Asp	Glu	Thr
	290					295					300				
Leu	Ser	Cys	11e	Asp	Leu	Ser	Pro	Lys	Gln	Arg	Leu	Arg			
305					310					315					

<210> 3726

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3726

Met Ser Gln Gly Leu Leu Gly Ala Phe Cys Phe Leu Phe Trp Val Ser

1 5 10 15

Phe Phe Pro Phe Leu Leu Ser Pro Phe Leu Phe Leu Leu Pro Leu 20 25 30

Pro Leu Ser Leu Phe Pro Phe Leu Phe Pro Phe Pro Leu Ser Ser Phe
35 40 45

Ser Ser Phe Pro Ser Leu Pro Phe Pro Phe Phe Ser Phe Pro Phe 50 55 60

Pro Phe Asp Lys Val Pro Arg Leu Asp Ala Ile Thr Ala His Cys Asp
65 70 75 80

Leu His Leu Leu Gly Cys Ser Asn Pro Pro Thr Leu Ala Ser Gly Val 85 90 95

Ala Gly 11e Thr Gly Ala Asp His His Thr Trp Leu 11e Phe Val Phe 100 105 110

Phe Val Glu Leu Gly Phe Gln Pro Cys Cys Pro Gly Trp Ser Gln Thr
115 120 125

Pro Glu Leu Lys Arg Ser His Pro Pro Trp Pro Pro Lys Val Leu Gly 130 135 140

Leu Gln Ala

145

<210> 3727

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3727

Met Phe Leu Phe His Ser Gly Leu Cys Ser Asp Phe Thr Ser Ser Gln
1 5 10 15

Gly Pro Leu Leu Gly Pro Ser Leu Asp Trp Pro Leu Cys His Ser Arg 20 25 30

Ser Leu Pro Val Leu Tyr Pro Ala Leu His Leu Met Ser His Asn Ser

Phe Phe Phe Phe Glu Thr Glu Ser His Ser Val Ser Arg Leu Glu Cys Asn Gly Ala lle Ser Ala His Cys Asn Leu Cys Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Gln Val Ala Gly Thr Thr Gly Val Cys His His Ala Gln Leu Ile Leu Phe Val Phe Leu Val Lys Thr Gly Phe Cys His Val Gly Gln Ala Arg Leu Glu Leu Leu Thr Ser Ser Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Arg Thr Arg Pro Cys Gly His Ile Thr Leu Tyr Val Pro Leu Ser Leu Pro Arg Leu Leu Ala Ser <210> 3728 <211> 164 <212> PRT <213> Homo sapiens <400> 3728 Met Asn Asn Ser Leu Asp Tyr Leu Ala Tyr Pro Val Ile Val Ser Asn His Arg Gln Ser Thr Thr Phe Arg Lys Leu Asp Phe Gly His Tyr Val Ser His Lys Asn Arg lle Gln lle Ala Lys Pro Thr Val Asp Thr Lys Pro Pro Val Ala His Thr Asn His Ile Leu Lys Leu Ser Lys Leu Gln Gly Glu Gln Lys Lys lle Asn Lys Ile Glu Tyr Glu Asn Lys Gln  Leu Cys Gln Lys Ile Ala Asn Ala His Arg Gly Pro Ala Lys Val Asp 85 90 95 Cys Trp Asn Glu Tyr Phe Ser Lys Ser Leu Asn Arg Glu Thr Arg Asn 100 105 110 Arg Glu Leu Val Arg Ile Thr Met Glu Asn Gln Gly Ile Leu Lys Arg 120 125 Leu Val Asp Arg Lys Pro His Tyr Asp Arg Arg Ala Ser Glu Ile Asp 130 135 140 Trp Gln Asn Ser Arg Arg Tyr Ile Arg Asn Thr Thr Arg Tyr Leu Leu 145 150 155 160 Ser Gln Asn Glu

<210> 3729

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3729

Met Ser His His Ala Lys Pro Lys Pro Gly Val Gln Trp Cys Lys Phe 1 5 10 15

Gln Ser Glu Ser Thr Gly Arg Arg Ala Arg Ser Ala Asp Val Gln Gly
20 25 30

Gln Glu Lys Met Asp Val Thr Ala Gln Glu Ala Arg Thr Asn Leu Pro 35 40 45

Phe Tyr Leu Phe Val Leu Phe Ser Pro Gly Ser Leu Gly Gln Glu Ala 50 55 60

Ala Ala Val Lys Gln Ser His Ile Ser Ala Pro Ala Ser Glu Leu Arg
65 70 75 80

Cys Ile Gln Leu Arg Ser Arg Ser Arg Thr Arg Gly Asn Lys Ile Ile 85 90 95

Trp Glu Gln Gly Gln Glu Gly Ala Gly Leu His Gly Arg 100 105 <210> 3730 <211> 154 <212> PRT <213> Homo sapiens <400> 3730 Met Asp Pro Ala Ser Val His Pro Pro Lys Leu Cys Pro Pro Pro Phe 10 Ile Phe Ile Phe Ile Phe Ile Phe Met Phe Leu Ser Ile Thr Ser Arg 25 30 20 Arg Arg Pro Arg Lys Ala Lys Tyr Leu Asp Glu Met Leu Ser Ser Leu 40 45 Pro Val Arg Leu Gln Pro Asp Ser Asn Ala Ser Ser Arg Val Val Leu 50 55 60 Gly Ser Cys Arg Val Arg Glu Pro Leu Lys Arg Trp Pro Arg Gln Ala 70 75 Trp His Ala Met Ser Pro Pro Gly Ala Glu Phe Arg Ala Asn Ala Leu 90 Cys Lys Cys Leu Asn Ser Ala Asp Lys Gly His Asn Gly Glu Pro Arg 100 105 110 Val Ala Pro Gln Ser Cys Pro Val Gly Ala Asn Arg Phe His Gln Gln 120 He Leu Arg Thr Pro Glu Gly Thr Leu Arg Met Met Asp Glu Gly Thr 130 135 140 Phe Ile Leu Pro Gly Arg Arg Arg Gly Pro 150 145

<210> 3731

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3731

Met Thr Ser Leu Thr His Gly Met His Leu Thr Ser Ser Thr Ser Cys

1 5 10 15

Ser	Cys	Gln	Ser	Ser	Gly	Thr	Ser	Phe	Thr	Ser	Cys	Ser	Cys	Arg	Ser
			20					25					30		
Ser	Gly	Thr	Ser	Ser	Thr	Ser	Arg	Ser	Trp	Trp	Ser	Ser	Gly	Thr	Ser
		35					40					45			
Ser	Thr	Ser	Cys	Ser	Trp	Trp	Ser	Ser	Gly	Thr	Ser	Ser	Thr	Phe	Cys
	50					55					60				
Ser	Cys	Trp	Ser	Ser	Gly	Thr	Ser	Phe	Thr	Ser	Cys	Ser	Cys	Trp	Ser
65					70					75					80
Ser	Gly	Thr	Ser	Ser	Thr	Pro	Cys	Ser	Cys	Arg	Ser	Ser	Gly	Thr	Ser
				85					90					95	
Ser	Thr	Ser	Cys	Ser	Cys	Trp	Ser	Ser	Gly	Thr	Ser	Ser	Thr	Ser	Trp
			100					105					110		
Ser	Cys	Lys	Ser	Ser	Gly	Thr	Ser	Ser	Thr	Cys	Tyr	Met	Cys	Leu	Ser
		115					120					125			
Ser	Gly	Thr	Ser	Ser	Thr	Ser	Tyr	Ser	Ser	Trp	Ser	Ser	Gln	Thr	Ser
	130					135					140				
Ser	Thr	Ser	Ser	Met	Cys	Leu	Pro	Ser	Arg	Thr	Ser	Ser	lle	Phe	Tyr
145					150					155					160
Ser	Cys	Leu	Pro	Leu	Gly	His	His	Leu	Pro	Phe	Cys	Ser	Val	Arg	Pro
				165					170					175	
Leu	Gly	Pro	Pro	Thr	Thr	Ser	Pro	Leu	Ser	Asn	Leu	Trp	He	Leu	Ser
			180					185					190		
His	Pro	Phe	Tyr	Leu	Gly	Gly	Val	Trp	Pro	Leu	Asn	Asn	His	Leu	His
		195					200					205			
Met	Asn	Leu	Leu	Gly	Tyr	Phe	Asn	Asn	Phe	His	Leu	Trp	Pro	Leu	Gly
	210					215					220				
Leu	Gln	Pro	Leu	Pro		Pro	Gly	Ser	Pro		Val	His	Leu	Pro	Pro
225					230					235					240
Pro	Pro	Leu	Gly	Trp	Pro	Leu	Leu	Ser	Glu	Leu	Leu	Gln	Asp	Leu	Asn
				245					250					255	
G1n	Leu	Pro	Tyr	Pro	Leu	Leu	Pro	Val	Gly	Pro	Arg	Pro	Arg	Pro	Pro
			260					265					270		
His	Val	Leu	Leu	Gly	He	Phe	He								
		275					280								

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<210> 3732
<211> 103
<212> PRT
<213> Homo sapiens
<400> 3732
Met Cys Leu Thr 11e Gln Gly Ala 11e Trp Val Arg Thr Gln Ser Gln
                                     10
Thr Ile Ser Leu Ala Asn Glu Glu Thr Glu Ser Glu Arg Ser Ser Asp
             20
                                 25
                                                      30
Val Pro Lys Ser Ala Arg Pro Val Ser Gly Arg Ala Thr Leu Leu Glu
                             40
                                                 45
Glu Asp Ser Pro Ala Pro His Pro Pro Cys Phe Ser Met Tyr Tyr Val
    50
                         55
                                             60
Pro Ala Ser Leu Phe Ala Ala Pro Leu Glu Cys Phe Ser Met Gln Leu
                     70
                                         75
65
Ser Leu Gln Ser Val Val Pro Ala His Gly Leu Pro Ser Ser Arg
                                     90
Arg Gln Asn Arg Gly Lys Pro
            100
<210> 3733
<211> 105
<212> PRT
<213> Homo sapiens
<400> 3733
Met Arg Val Met Leu Thr Phe Phe lle Pro Lys Pro lle Arg Ile Arg
 l
                  5
                                     10
                                                          15
Phe Ala Asn Ser Ser Gly Lys Asn Gly Arg Lys Gly Ser Pro Leu Lys
                                 25
Ser Arg Leu Phe Tyr Cys Phe Ser Asn Ile Lys Asn Lys Gln Leu Gly
                             40
                                                  45
Glu Val Phe Leu Phe Leu Phe Leu Phe Val Phe Gly Leu Gly Ser Val
```

60

Gly Gly Arg Gly Leu Ser Lys Trp Cys Ala Arg Lys Ile Asn Thr Gln
65 70 75 80

Leu Thr Tyr Lys His Glu Gly Leu Tyr Gln Gln Lys Phe Lys Val Pro
85 90 95

Arg Phe Phe Leu Ile Phe Phe Cys Leu
100 105

<210> 3734

<211> 620

<212> PRT

<213> Homo sapiens

<400> 3734

Gly Ala Thr Glu Leu Val Ala Glu Pro Asn Arg Arg Val Leu Glu Thr 65 70 75 80

Leu Ala Ser Ser Leu His Thr Leu Lys Phe Arg His Leu Leu Phe Ser 85 90 95

Asp Val Ala Ala Gln Gln Ser Leu Arg Gln Leu Leu His Gln Leu 11e 100 105 110

His His Gly Ala Val Ser Gln Val Ser Leu Tyr Ser Trp Pro Val Pro 115 120 125

Glu Ser Ala Leu Phe lle Leu IIe Leu Thr Met Ser Ala Gly Phe Trp 130 135 140

Gln Pro Gly Pro Gly Gly Pro Pro Cys Arg Leu Cys Gly Glu Ala Ser 145 150 155 160

Arg Gly Arg Ala Pro Ser Arg Asp Glu Gly Ser Leu Leu Leu Gly Ser 165 170 175

Arg	Arg	Pro	Arg	Arg	Asp	Ala	Ala	Glu	Arg	Cys	Ala	Ala	Ala	Leu	Met
			180					185					190		
Ala	Ser	Arg	Arg	Lys	Ser	Glu	Ala	Lys	Gln	Met	Pro	Arg	Ala	Ala	Pro
		195					200					205			
Ala	Thr	Arg	Val	Thr	Arg	Arg	Ser	Thr	Gln	Glu	Ser	Leu	Thr	Ala	Gly
	210					215					220				
G1y	Thr	Asp	Leu	Lys	Arg	Glu	Leu	His	Pro	Pro	Ala	Thr	Ser	His	Glu
225					230					235					240
Ala	Pro	Gly	Thr	Lys	Arg	Ser	Pro	Ser	Ala	Pro	Ala	Ala	Thr	Ser	Ser
				245					250					255	
Ala	Ser	Ser	Ser	Thr	Ser	Ser	Tyr	Lys	Arg	Ala	Pro	Ala	Ser	Ser	Ala
			260					265					270		
Pro	Gln	Pro	Lys	Pro	Leu	Lys	Arg	Phe	Lys	Arg	Ala	Ala	Gly	Lys	Lys
		275					280					285			
Gly	Ala	Arg	Thr	Arg	Gln	Gly	Pro	Gly	Ala	Glu	Ser	Glu	Asp	Leu	Tyr
	290					295					300				
Asp	Phe	Val	Phe	lle	Val	Ala	Gly	Glu	Lys	Glu	Asp	Gly	Glu	Glu	Met
305					310					315					320
Glu	Ile	Gly	Glu	Val	Ala	Cys	Gly	Ala	Leu	Asp	Gly	Ser	Asp	Pro	Ser
				325					330					335	
Cys	Leu	Gly	Leu	Pro	Ala	Leu	Glu	Ala	Ser	Gln	Arg	Phe	Arg	Ser	He
			340					345					350		
Ser	Thr	Leu	Glu	Leu	Phe	Thr	Va]	Pro	Leu	Ser	Thr	Glu	Ala	Ala	Leu
		355					360					365			
Thr	Leu	Cys	His	Leu	Leu	Ser	Ser	Trp	Val	Ser	Leu	Glu	Ser	Leu	Thr
	370					375					380				
Leu	Ser	Tyr	Asn	Gly	Leu	Gly	Ser	Asn	lle	Phe	Arg	Leu	Leu	Asp	Ser
385					390					395					400
Leu	Arg	Ala	Leu	Ser	Gly	Gln	Ala	Gly	Cys	Arg	Leu	Arg	Ala	Leu	His
				405					410					415	
Leu	Ser	Asp	Leu	Phe	Ser	Pro	Leu	Pro	He	Leu	Glu	Leu	Thr	Arg	Ala
			420					425					430		
He	Val	Arg	Ala	Leu	Pro	Leu	Leu	Arg	Val	Leu	Ser	He	Arg	Val	Asp
		435					440					445			
Hic	Pro	Sor	G1n	Ara	Acn	Aen	Pro	C1v	Val	Pro	$G1_{M}$	Acn	Δla	$C \perp_{V}$	Dro

Pro Ser His Ile Ile Gly Asp Glu Glu Ile Pro Glu Asn Cys Leu Glu Gln Leu Glu Met Gly Phe Pro Arg Gly Ala Gln Pro Ser Pro Leu Leu Cys Ser Val Leu Lys Ala Ser Gly Ser Leu Gln Gln Leu Ser Leu Asp Ser Ala Thr Phe Ala Ser Pro Gln Asp Phe Gly Leu Val Leu Gln Thr Leu Lys Glu Tyr Asn Leu Ala Leu Lys Arg Leu Ser Phe His Asp Met Asn Leu Ala Asp Cys Gln Ser Glu Val Leu Phe Leu Leu Gln Asn Leu Thr Leu Gln Glu Ile Thr Phe Ser Phe Cys Arg Leu Phe Glu Lys Arg Pro Ala Gln Phe Leu Pro Glu Met Val Ala Ala Met Lys Gly Asn Ser Thr Leu Lys Gly Leu Arg Leu Pro Gly Asn Arg Leu Gly Gly Gln Thr Leu Gly Arg Glu Arg Gly Lys Glu Leu Gly Leu 

<210> 3735

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3735 ⋅

 Met
 Thr
 Val
 Cys
 Pro
 Ser
 Leu
 Ser
 Cys
 Thr
 Ala
 Ser
 Ala
 Ser
 Leu

 1
 5
 5
 10
 10
 15
 15

 Gln
 Leu
 His
 Ser
 Leu
 Ser
 Pro
 Pro
 Ala
 Gln
 Cys
 Gln
 Pro
 Leu

 Ser
 Thr
 Cys
 Thr
 Ala
 Ala
 Gly
 Ser
 Ser
 Ser
 Leu
 Ser
 Thr
 Cys
 Thr
 Ala

 Ser
 Ala
 Ser
 Leu
 His
 Leu
 His
 Ser
 Val
 Ser
 Leu
 Ser
 Pro
 Pro
 Pro
 Pro
 Pro
 Pro
 Ala
 Gln

	50					55					. 60				
Arg	Leu	Gly	Ala	Ala	Ala	Ser	Pro	Pro	Ala	Gln	Arg	Gln	Pro	Leu	Ser
65					70					75					80
Thr	Cys	Thr	Ala	Ser	Ala	Ser	Leu	His	Leu	His	Ser	Val	Ser	Leu	Ser
				85					90					95	
Pro	Pro	Ala	Gln	Arg	Leu	Gly	Ala	Ala	Val	Ser	Pro	Pro	Ala	Gln	Arg
			100					105					110		
Gln	Pro	Leu	Ser	Thr	Cys	Thr	Ala	Ser	Ala	Ser	Pro	Pro	Ala	Gln	Arg
		115					120					125			
Gln	Pro	Leu	Ser	Thr	Cys	Thr	Val	Ala	Gly	Ser	Ser	Ser	Leu	Ser	Thr
	130					135					140				
Cys	Thr	Ala	Ser	Ala	Ser	Phe	His	Leu	His	Ser	Va]	Ser	Leu	Ser	Pro
145					150					155					160
Pro	Ala	Gln	Arg	Leu	Gly	Ala	Ala	Ala	Ser	Pro	Pro	Ala	Gln	Arg	Gln
				165					170					175	
Pro	Leu	Ser	Thr	Cys	Thr	Ala	Ala	Ala	Ser	Pro	Pro	Ala	Gln	Arg	Gln
			180					185					190		
Pro	Leu	Ser	Thr	Cys	Thr	Val	Ala	Ala	Ser	Leu	His	Leu	His	Ser	Gly
		195					200					205			
Trp	Glu	Gln	Gln	Pro	Leu	His	Leu	His	Asn	Ser	Ser	Leu	Ser	Pro	Pro
	210					215					220				
Ala	Gln	Gln	Leu	Gly	Ala	Ala	Ala	Ser	Gln	Gly	Cys	Cys	Lys	Asp	Gly
225					230					235					240
Val	Ser	Thr	Cys	Asn	Val	Arg	Thr	Ala	Pro	Ala	Thr	His	Cys	Ala	Val
				245					250					255	
Cys	Arg	Ala	Val	Val	Met	Val	Thr	Val	Gly	Val	Thr	Gly	Gly	Arg	Glu
			260					265					270		
Leu	Arg	Asp	Ser	Ser	Gly										
		275													

<210≻ 3736

〈211〉 187

<212> PRT

<213≻ Homo sapiens

<400> 3736 Met Asn Thr Leu lle Phe Thr His Leu Cys Ser Leu Glu Pro Ile Thr Met Ser Gln Asn Cys Ala Tyr Leu Val Leu Val Asp Thr Val Leu Gln 20 25 30 Asn Ile Pro Leu Lys Lys Leu Asn Asn Ser Ala Asn Phe Pro Ile Pro 40 Ser Leu Pro Val Asp Thr Ile Arg Leu Leu Thr Phe Leu Gln Phe Lys 50 55 60 Lys Thr Leu His Met His Ser Tyr Thr Gln Lys Gln Ser Leu Leu Lys 70 75 Cys His Leu Leu Asn Glu Val Ile Met Ile Phe Phe Leu Lys Leu Lys 85 90 Tyr His Pro Pro Gln His Ser Leu IIe Pro Phe Thr Leu Phe Ser IIe 100 105 110 Val Leu Thr Thr Phe Trp His Ala Val Val Ser Leu Leu Ile Leu Asp Cys Arg Leu Gln Lys Gly Lys Ser Leu Gly Phe Cys Pro Val Asn Tyr 135 140 Glu Gln Cys Leu Ala Asp Asp Lys Lys Thr His Ile Phe Ile Glu Leu 150 155 160 145 Asn Gly His Gly Asn Cys Arg 11e His Met Asn Phe Ser His Ser Cys 165 170 175 Tyr Val Ser Pro Leu Ala His Leu Ser Leu Val

<210> 3737

<211> 225

<212> PRT

<213> Homo sapiens

180

<400> 3737

Met Leu Phe Val Phe Arg Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe

1 5 10 15

Arg Gly Arg Thr Ala Asp Phe Val Phe Met Phe Leu Phe Gly Gly Val

			20					25					30		
Leu	Met	Thr	Val	Ser	Phe	Pro	Gln	Ala	Leu	Glu	Pro	Arg	Ala	Arg	Ala
		35					40					45			
Pro	Arg	Arg	Pro	Ala	Cys	Val	Gly	Pro	Gly	Ala	Asn	Thr	Ala	Met	Pro
	50					55					60				
Glu	Arg	Asp	Thr	Val	Ala	Val	Ser	Ser	Leu	Val	Cys	Val	Glu	Gly	Pro
65					70					75					80
Leu	Cys	Ala	Gln	Leu	Gln	Gly	Ser	Gly	Leu	Asp	Leu	Gln	Cys	Cys	Met
				85					90					95	
Gln	Asn	Thr	Lys	Pro	Arg	Thr	Lys	Glu	Pro	Gly	Thr	Val	Pro	Ala	Leu
			100					105					110		
Gly	Ala	His	Gly	Leu	Leu	Ala	Ala	Ala	Gly	Gln	Leu	His	Pro	Arg	Gly
		115					120					125			
Pro	Ala	Gly	Asp	Cys	Gly	Gly	Pro	Tyr	Leu	Leu	Leu	Pro	Gly	Gly	Arg
	130					135					140				
Leu	Pro	Gln	Pro	Ala	Trp	Arg	Gln	Glu	Ala	Pro	Ala	Asp	Pro	Trp	Leu
145					150					155					160
Pro	Val	Ser	Val	Glu	Ser	Pro	Pro	Ser	Leu	Ser	Pro	Pro	Ser	Glu	Gly
				165					170					175	
Ser	Pro	Pro	Met	Gly	Thr	Cys	Ala	G1 y	Leu	Cys	Ser	Thr	Arg	Ala	Pro
			180					185					190		
Pro	His	Arg	Lys	Leu	Leu	Leu	Asp	Val	Pro	Ala	Glu	Asp	Pro	Asn	Tyr
		195					200					205			
Leu	Pro	Leu	Pro	Glu	Glu	Gln	Pro	Gly	Pro	His	Leu	Pro	Pro	Pro	Gln
	210					215					220				
Gln															
225															

<210> 3738

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3738

 $\hbox{Met Glu Asn Thr Leu Tyr Ile Phe Phe Phe Phe Leu Arg Trp Ser Leu}\\$ 

5 10 Thr Leu Ser Pro Arg Leu Val Cys Ser Gly Val Ile Ser Ala His Cys 20 25 Asn Leu Gln Leu Leu Gly Ser Ser Ala Ser Leu Ala Ser Ala Phe Arg 40 35 45 Val Ala Gly Ile Thr Asp Leu His His His Ala Gln Leu Ile Phe Val 55 60 Phe Leu Val Glu Thr Gly Phe His His Val Gly Gln Val Gly Leu Glu 65 70 75 80 Leu Leu Thr Ser Ser Asp Pro Pro Ala Ser Val Ser Glu Ser Ala Gly 85 90 Ile Thr Gly Met Ser His Arg Ala Trp Pro Ser Leu Arg Ile Phe Ser 105 110 Trp

<210> 3739

<211> 447

<212> PRT

<213> Homo sapiens

<400> 3739

Met Pro His Val Leu lle Glu Lys Gly Asp Met Thr Leu Gly Glu Phe
1 5 10 15

Asp Gln Arg Leu Lys Gly Arg Thr Asp Phe Ile Lys Gly Met Lys Lys
20 25 30

Lys Ser Arg Ala Glu Arg Lys Thr Glu 11e 11e Arg Lys Arg Leu His  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$ 

Lys Asp Ile Pro His His Ser Val Ile Met Leu Asn Phe Cys Pro Asp
50 55 60

Leu Gln Ser Val Gln Pro Cys Leu Arg Lys Ala His Gly Glu Phe IIe 65 70 75 80

Phe Leu lle Asp Arg Ser Ser Ser Met Ser Gly lle Ser Met His Arg
85 90 95

Val Lys Asp Ala Met Leu Val Ala Leu Lys Ser Leu Met Pro Ala Cys

			100					105					110		
Leu	Phe	Asn	Πle	He	Gly	Phe	Gly	Ser	Thr	Phe	Lys	Ser	Leu	Phe	Pro
		115					120					125			
Ser	Ser	Gln	Thr	Tyr	Ser	Glu	Asp	Ser	Leu	Ala	Met	Ala	Cys	Asp	Asp
	130					135					140				
He	Gln	Arg	Met	Lys	Ala	Asp	Met	Gly	Gly	Thr	Asn	He	Leu	Ser	Pro
145					150					155					160
Leu	Lys	Trp	Val	He	Arg	Gln	Pro	Val	His	Arg	Gly	His	Pro	Arg	Leu
				165					170					175	
Leu	Phe	Val	Ile	Thr	Asp	Gly	Ala	Val	Asn	Asn	Thr	Gly	Lys	Val	Leu
			180					185					190		
Glu	Leu	Val	Arg	Asn	His	Ala	Phe	Ser	Thr	Arg	Cys	Tyr	Ser	Phe	Gly
		195					200					205			
He	Gly	Pro	Asn	Val	Cys	His	Arg	Leu	Val	Lys	Gly	Leu	Ala	Ser	Val
	210					215					220				
Ser	Glu	G1 y	Ser	Ala	Glu	Leu	Leu	Met	Glu	Gly	Glu	Arg	Leu	Gln	Pro
225					230					235					240
Lys	Met	Val	Lys	Ser	Leu	Lys	Lys	Ala	Met	Ala	Pro	Val	Leu	Ser	Asp
				245					250					255	
Val	Thr	Val	Glu	Trp	He	Phe	Pro	Glu	Thr	Thr	Glu	Val	Leu	Val	Ser
			260					265					270		
Pro	Va]	Ser	Ala	Ser	Ser	Leu	Phe	Pro	Gly	Glu	Arg	Leu	Val	Gly	Tyr
		275					280					285			
Gly	He	Val	Cys	Asp	Ala	Ser	Leu	His	He	Ser	Asn	Pro	Arg	Ser	Asp
	290					295					300				
Lys	Arg	Arg	Arg	Tyr	Ser	Met	Leu	His	Ser	Gln	Glu	Ser	Gly	Ser	Ser
305					310					315					320
Val	Phe	Tyr	His	Ser	Gln	Asp	Asp	Gly	Pro	Gly	Leu	Glu	Gly	Gly	Asp
				325					330					335	
Cys	Ala	Lys	Asn	Ser	Gly	Ala	Pro	Phe	lle	Leu	Gly	Gln	Ala	Lys	Asn
			340					345					350		
Ala	Arg		Ala	Ser	Gly	Asp		Thr	Thr	Lys	His	Asp	Leu	Asn	Leu
		355					360					365			
Ser		Arg	Arg	Arg	Ala	Tyr	Ser	Thr	Asn	Gln		Thr	Asn	His	Lys
	370					375					380				
Pro	Leu	Pro	Arg	Ala	Thr	Met	Ala	Ser	Asp	Pro	Met	Pro	Ala	Ala	Lys

<210> 3740 <211> 167 <212> PRT

<213> Homo sapiens

<400> 3740

Met Lys Ala Lys Glu Gly Arg Asn Val Tyr Ser Ser Ser Arg Tyr Asp 1 5 10 15

Asp Tyr Asp Arg Tyr Arg Arg Ser Arg Ser Arg Ser Tyr Glu Arg Arg 20 25 30

Arg Ser Arg Ser Phe Asp Tyr Asn Tyr Arg Arg Ser Tyr Ser 35 40 45

Pro Arg Asn Ser Arg Pro Thr Gly Arg Pro Arg Arg Ser Arg Ser His
50 55 60

Ser Asp Asn Asp Arg Phe Lys IIis Arg Asn Arg Ser Phe Ser Arg Ser 65 70 75 80

Lys Ser Asn Ser Arg Ser Arg Ser Lys Ser Gln Pro Lys Lys Glu Met 85 90 95

Lys Ala Lys Ser Arg Ser Arg Ser Ala Ser His Thr Lys Thr Arg Gly 100 105 110

Thr Ser Lys Thr Asp Ser Lys Thr His Tyr Lys Ser Gly Ser Arg Tyr
115 120 125

Glu Lys Glu Ser Arg Lys Lys Glu Pro Pro Arg Ser Lys Ser Gln Ser 130 135 140

Arg Ser Gln Ser Arg Ser Arg Ser Lys Ser Arg Ser Arg Ser Trp Thr 145 150 155 160

Ser Pro Lys Ser Ser Gly His

<210> 3741

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3741

Met Ala Gln Gln Gly Glu Gly His His Thr His His Gln Ile Leu Leu

1 5 10 15

Leu Val Ser Gly Phe His 11e Leu Phe Gln 11e Phe Arg Pro Ala His
20 25 30

Ser Leu Thr Phe Pro Ser Leu Leu His Ser Ser Lys Val Glu Leu Pro 35 40 45

Ala Ala Thr Gly Ile Ala Ala Lys Trp Glu Arg Ser Arg Val Val Arg
50 55 60

Ala Ala Pro Asp Asn Leu Gln Arg Ala Leu Leu Glu Leu Gly Cys Ala 65 70 75 80

Ser Leu Asn Leu Ser Tyr Tyr Met Cys Trp Val Arg Asp His Ala Tyr 85 90 95

Leu Pro Ala Gl<br/>n Glu Leu Thr Glu Glu Val Ser Lys Lys Cys Leu Leu 100<br/>  $105\,$   $110\,$ 

Asp Glu

<210> 3742

<211> 274

<212> PRT

<213> Homo sapiens

<400> 3742

Met Lys Pro Thr Leu Leu Ala Gln Gln Glu Thr Gln Lys Ala Ala Leu

1 5 10 15

Arg	Tyr	Glu	Arg	Ala	Val	Ser	Met	His	Asn	Ala	Ala	Arg	Glu	Met	Val
			20					25					30		
Phe	Val	Ala	Glu	Gln	Gly	Val	Met	Ala	Asp	Lys	Asn	Arg	Leu	Лsp	Pro
		35					40					45			
Thr	Trp	Gln	Glu	Met	Leu	Asn	His	Ala	Thr	Cys	Lys	Va]	Asn	Glu	Ala
	50					55					60				
Glu	Glu	Glu	Arg	Leu	Arg	Gly	Glu	Arg	Glu	His	Gln	Arg	Val	Thr	Arg
65					70					75					80
Leu	Cys	Gln	Gln	Ala	Glu	Ala	Arg	Val	Gln	Ala	Leu	Gln	Lys	Thr	Leu
				85					90					95	
Arg	Arg	Ala	lle	Gly	Lys	Ser	Arg	Pro	Tyr	Phe	Glu	Leu	Lys	Ala	Gln
			100					105					110		
Phe	Ser	Gln	He	Leu	Glu	Glu	His	Lys	Ala	Lys	Val	Thr	Glu	Leu	Glu
		115					120					125			
Gln	Gln	Val	Ala	Gln	Ala	Lys	Thr	Arg	Tyr	Ser	Val	Ala	Leu	Arg	Asn
	130					135					140				
Leu	Glu	Gln	He	Ser	Glu	Gln	lle	His	Ala	Arg	Arg	Arg	Gly	Gly	Leu
145					150					155					160
Pro	Pro	His	Pro	Leu	Gly	Pro	Arg	Arg	Ser	Ser	Pro	Val	Gly	Ala	Glu
				165					170					175	
Ala	Gly	Pro	Glu	Asp	Met	Glu	Asp	Gly	Asp	Ser	Gly	11e	Glu	Gly	Ala
			180					185					190		
Glu	Gly	Ala	Gly	Leu	Glu	Glu	Gly	Ser	Ser	Leu	Gly	Pro	Gly	Pro	Ala
		195					200					205			
Pro	Asp	Thr	Asp	Thr	Leu	Ser	Leu	Leu	Ser	Leu	Arg	Thr	Val	Ala	Ser
	210					215					220				
Asp	Leu	Gln	Lys	Cys	Asp	Ser	Val	Glu	His	Leu	Arg	Gly	Leu	Ser	Asp
225					230					235					240
His	Val	Ser	Leu	Asp	Gly	Gln	Glu	Leu	Gly	Thr	Arg	Ser	Gly	Gly	Arg
				245					250					255	
Arg	G1y	Ser	Asp	Gly	Gly	Ala	Arg	Gly	Gly	Arg	His	Gln	Arg	Ser	Val
			260					265					270		
Ser	Leu														

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<210> 3743
<211> 1085
<212> PRT
<213> Homo sapiens
<400> 3743
Met Lys lle Gly Ser Glu Glu Leu Val Tyr lle Thr His Ile Asp Asp
                                     10
Pro Trp Thr Phe Tyr Cys Gln Leu Ala Arg Asn Ala Asn Ile Leu Glu
                                 25
                                                      30
Glu Leu Ser Cys Ser Ile Thr Gln Leu Ser Lys Val Leu Leu Asn Leu
                             40
Lys Thr Ser Pro Leu Asn Pro Gly Thr Leu Cys Leu Ala Lys Tyr Thr
     50
                         55
                                             60
Asp Gly Asn Trp Tyr Arg Gly Ile Val Ile Glu Lys Glu Pro Lys Lys
                     70
                                          75
65
Val Phe Phe Val Asp Phe Gly Asn lle Tyr Val Val Thr Ser Asp Asp
                                     90
Leu Leu Pro Ile Pro Ser Asp Ala Tyr Asp Val Leu Leu Leu Pro Met
            100
                                 105
                                                     110
Gln Ala Val Arg Cys Ser Leu Ser Asp lle Pro Asp His lle Pro Glu
                            120
Glu Val Val Val Trp Phe Gln Glu Thr He Leu Asp Lys Ser Leu Lys
    130
                        135
                                             140
Ala Leu Val Val Ala Lys Asp Pro Asp Gly Thr Leu 11e 11e Glu Leu
                    150
145
                                         155
Tyr Gly Asp Asn Ile Gln Ile Ser Ala Ser Ile Asn Lys Lys Leu Gly
                                     170
Leu Leu Ser Tyr Lys Asp Arg Ile Arg Lys Lys Glu Ser Glu Val Leu
                                                     190
            180
                                 185
Cys Ser Thr Thr Glu Thr Leu Glu Glu Lys Asn Glu Asn Met Lys Leu
                            200
                                                 205
Pro Cys Thr Glu Tyr Leu Ser Lys Ser Val Gly Tyr Lys Leu Pro Asn
    210
                        215
```

Lys Glu Ile Leu Glu Glu Ser Tyr Lys Pro Gln Ile Asn Ser Ser Tyr

Lys	Glu	Leu	Lys	Leu	Leu	Gln	Ser	Leu	Thr	Lys	Thr	Asn	Leu	Val	Thr
				245					250					255	
Gln	Tyr	Gln	Asp	Ser	Val	Gly	Asn	Lys	Asn	Ser	Gln	Val	Phe	Pro	Leu
			260					265					270		
Thr	Thr	Glu	Lys	Lys	Glu	Glu	11e	Ser	Ala	Glu	Thr	Pro	Leu	Lys	Thr
		275					280					285			
Ala	Arg	Val	Glu	Ala	Thr	Leu	Ser	Glu	Arg	Lys	He	Gly	Asp	Ser	Cys
	290					295					300				
Asp	Lys	Asp	Leu	Pro	Leu	Lys	Phe	Cys	Glu	Phe	Pro	Gln	Lys	Thr	Ile
305					310					315					320
Met	Pro	Gly	Phe	Lys	Thr	Thr	Val	Tyr	Val	Ser	His	Ile	Asn	Asp	Leu
				325					330					335	
Ser	Asp	Phe	Tyr	Val	Gln	Leu	Пе	Glu	Asp	Glu	Ala	Glu	He	Ser	His
			340					345					350		
Leu	Ser	Glu	Arg	Leu	Asn	Ser	Val	Lys	Thr	Arg	Pro	Glu	Tyr	Tyr	Val
		355					360					365			
Gly	Pro	Pro	Leu	Gln	Arg	Gly	Asp	Met	He	Cys	Ala	Val	Phe	Pro	Glu
	370					375					380				
Asp	Asn	Leu	Trp	Tyr	Arg	Ala	Val	lle	Lys	Glu	Gln	Gln	Pro	Asn	Asp
385					390					395					400
Leu	Leu	Ser	Val	Gln	Phe	He	Asp	Tyr	Gly	Asn	Val	Ser	Val	Val	His
				405					410					415	
Thr	Asn	Lys	He	Gly	Arg	Leu	Asp	Leu	Val	Asn	Ala	He	Leu	Pro	Gly
			420					425					430		
Leu	Cys	He	His	Cys	Ser	Leu	Gln	Gly	Phe	Glu	Val	Pro	Asp	Asn	Lys
		435					440					445			
Asn	Ser	Lys	Lys	Met	Met	His	Tyr	Phe	Ser	Gln	Arg	Thr	Ser	Glu	Ala
	450					455					460				
Ala	He	Arg	Cys	Glu	Phe	Val	Lys	Phe	Gln	Asp	Arg	Trp	G]u	Val	lle
465					470					475					480
Leu	Ala	Asp	Glu	His	Gly	lle	lle	Ala	Asp	Asp	Met	He	Ser	Arg	Tyr
				485					490					495	
Ala	Leu	Ser	Glu	Lys	Ser	Gln	Val	Glu	Leu	Ser	Thr	Gln	Va]	He	Lys
			500					505					510		
Ser	Ala	Ser	Ser	Lys	Ser	Val	Asn	Lys	Ser	Asp	He	Asp	Thr	Ser	Val
		515					520					525			

Phe		Asn	Trp	Tyr	Asn		Glu	Lys	Lys	Met		Arg	Ala	Tyr	Ala
	530					535					540				
Thr	Val	Пe	Asp	Gly	Pro	Glu	Tyr	Phe	Trp	Cys	Gln	Phe	Ala	Asp	Thr
545					550					555					560
Glu	Lys	Leu	Gln	Cys	Leu	Glu	Val	Glu	Val	Gln	Thr	Ala	G1y	Glu	G1n
				565					570					575	
Val	Ala	Asp	Arg	Arg	Asn	Cys	He	Pro	Cys	Pro	Tyr	Пе	Gly	Asp	Pro
			580					585					590		
Cys	lle	Val	Arg	Tyr	Arg	Glu	Asp	Gly	His	Tyr	Tyr	Arg	Λla	Leu	Ile
		595					600					605			
Thr	Asn	He	Cys	Glu	Asp	Tyr	Leu	Val	Ser	Val	Arg	Leu	Val	Asp	Phe
	610					615					620				
Gly	Asn	11e	Glu	Asp	Cys	Val	Asp	Pro	Lys	Ala	Leu	Trp	Ala	Пe	Pro
625					630					635					640
Ser	Glu	Leu	Leu	Ser	Val	Pro	Met	Gln	Ala	Phe	Pro	Cys	Cys	Leu	Ser
				645					650					655	
Gly	Phe	Asn	He	Ser	Glu	Gly	Leu	Cys	Ser	Gln	Glu	Gly	Asn	Asp	Tyr
			660					665					670		
Phe	Tyr	Glu	Ile	He	Thr	Glu	Asp	Val	Leu	Glu	lle	Thr	lle	Leu	Glu
		675					680					685			
He	Arg	Arg	Asp	Val	Cys	Asp	He	Pro	Leu	Ala	He	Val	Asp	Leu	Lys
	690					695					700				
Ser	Lys	Gly	Lys	Ser	lle	Asn	Glu	Lys	Met	Glu	Lys	Tyr	Ser	Lys	Thr
705					710					715					720
Gly	lle	Lys	Ser	Ala	Leu	Pro	Tyr	Glu	Asn	He	Asp	Ser	Glu	Пę	Lys
				725					730					735	
Gln	Thr	Leu	Gly	Ser	Tyr	Asn	Leu	Asp	Va]	Gly	Leu	Lys	Lys	Leu	Ser
			740					745					750		
Asn	Lys	Ala	Val	Gln	Asn	Lys	He	Tyr	Met	Glu	Gln	Gln	Thr	Asp	G] u
		755					760					765			
Leu	Ala	Glu	He	Thr	Glu	Lys	Asp	Val	Asn	Пе	He	Gly	Thr	Lys	Pro
	770					775					780				
Ser	Asn	Phe	Arg	Asp	Pro	Lys	Thr	Asp	Asn	He	Cys	G]u	Gly	Phe	G] u
785					790					795					800
Asn	Pro	Cys	Lys	Asp	Lys	He	Asp	Thr	Glu	Glu	Leu	Glu	Gly	Glu	Leu
				805					810					815	

Glu	Cys	His	Leu	Val	Asp	Lys	Ala	Glu	Phe	Asp	Asp	Lys	Tyr	Leu	lle
			820					825					830		
Thr	Gly	Phe	Asn	Thr	Leu	Leu	Pro	His	Ala	Asn	Glu	Thr	Lys	Glu	Пе
		835					840					845			
Leu	Glu	Leu	Asn	Ser	Leu	Glu	Val	Pro	Leu	Ser	Pro	Asp	Asp	Glu	Ser
	850					855					860				
Lys	Glu	Phe	Leu	Glu	Leu	Glu	Ser	He	Glu	Leu	Gln	Asn	Ser	Leu	Val
865					870					875					880
Val	Asp	Glu	Glu	Lys	Gly	Glu	Leu	Ser	Pro	Val	Pro	Pro	Asn	Val	Pro
				885					890					895	
Leu	Ser	Gln	Glu	Cys	Val	Thr	Lys	Gly	Ala	Met	Glu	Leu	Phe	Thr	Leu
		,	900					905					910		
Gln	Leu	Pro	Leu	Ser	Cys	Glu	Ala	Glu	Lys	Gln	Pro	Glu	Leu	G1u	Leu
		915					920					925			
Pro	Thr	Ala	Gln	Leu	Pro	Leu	Asp	Asp	Lys	Met	Asp	Pro	Leu	Ser	Leu
	930					935					940				
Gly	Val	Ser	Gln	Lys	Ala	Gln	Glu	Ser	Met	Cys	Thr	Glu	Asp	Met	Arg
945					950					955					960
Lys	Ser	Ser	Cys	Val	Glu	Ser	Phe	Asp	Asp	Gln	Arg	Arg	Met	Ser	Leu
				965					970					975	
His	Leu	His	Gly	Ala	Asp	Cys	Asp	Pro	Lys	Thr	Gln	Asn	Glu	Met	Asn
			980					985					990		
lle	Cys	Glu	Glu	Glu	Phe	Val	Glu	Tyr	Lys	Asn	Arg	Asp	Ala	He	Ser
		995					000					1005			
Ala	Leu	Met	Pro	Leu	Phe	Ser	Glu	Glu	Glu	Ser	Ser	Asp	Gly	Ser	Lys
]	1010					1015					1020				
His	Asn	Asn	Gl y	Leu	Pro	Asp	His	lle	Ser	Ala	Gln	Leu	Gln	Asn	Thr
1025	5				1030					1035					1040
Tyr	Thr	Leu	Lys	Ala	Phe	Thr	Va]	Gly	Ser	Lys	Cys	Val	Val	Trp	Ser
				1045					1050					1055	
Ser	Leu	Arg	Asn	Thr	Trp	Ser	Lys	Cys	Glu	He	Leu	Glu	Thr	Ala	Glu
			1060					1065					1070		
Glu	Gly	Thr	Arg	Lys	Arg	Gly	Leu	Glu	Val	Met	Glu	Пе			
		1075					1080					1085			

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<211> 1060
<212> PRT
<213> Homo sapiens
<400> 3744
Met Gly Asn Ser Ile Thr Tyr Arg Asp Gln Ala Ala Val Glu Asn His
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Leu Glu Gln Arg Leu His Gln Pro Gln Lys Leu Leu Glu Asp Leu Arg
                                 25
Lys Thr Asp Ala Gln Gln Phe Arg Thr Ala Met Lys Cys Leu Leu Glu
                             40
                                                  45
Asp Lys Lys Asp Gly Leu Asp Leu Lys Asp Ile Ile Ile Asp Leu Gly
    50
                         55
                                              60
Glu Ile Arg Glu Arg Ala Leu Gln Ser Pro Gly Val Asn Arg Ser Leu
                     70
                                          75
Phe Leu Ile Thr Leu Glu Arg Cys Phe Gln Met Leu Asn Ser Leu Glu
                 85
                                     90
                                                          95
Cys Val Glu Ile Leu Gly Lys Val Leu Arg Gly Ser Ser Gly Ser Phe
                                105
Leu Gln Pro Asp Ile Thr Glu Arg Leu Pro Arg Asp Leu Arg Glu Asp
                            120
Ala Phe Lys Asn Leu Ser Ala Val Phe Lys Asp Leu Tyr Asp Lys Thr
    130
                        135
                                             140
Ser Ala His Ser Gln Arg Ala Leu Tyr Ser Trp Met Thr Gly Ile Leu
                    150
                                         155
Gln Thr Ser Ser Asn Ala Thr Asp Asp Ser Ala Ser Trp Val Ser Ala
                165
                                     170
                                                         175
Glu His Leu Trp Val Leu Gly Arg Tyr Met Val His Leu Ser Phe Glu
                                185
Glu lle Thr Lys Ile Ser Pro Ile Glu lle Gly Leu Phe Ile Ser Tyr
                            200
                                                 205
Asp Asn Ala Thr Lys Gln Leu Asp Met Val Tyr Asp Ile Thr Pro Glu
   210
                        215
                                             220
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Leu Ala Gln Ala Phe Leu Glu Arg 11e Ser Ser Ser Asn Phe Asn Met

<210> 3744

225					230					235					240
Arg	Asn	Thr	Ser	Thr	He	His	Arg	Leu	Gly	Leu	Leu	Val	Cys	Phe	Tyr
				245					250					255	
Asn	Asp	Leu	Glu	Leu	Leu	Asp	Ala	Thr	Val	Ala	Gln	Va]	Leu	Leu	Tyr
			260					265					270		
Gln	Met	Ile	Lys	Cys	Ser	His	Leu	Arg	G1 y	Phe	Gln	Ala	Gly	Val	Gln
		275					280					285			
Lys	Leu	Lys	Ala	Glu	Leu	Leu	Asp	He	Ala	Met	Glu	Asn	Gln	Thr	Leu
	290					295					300				
Asn	Glu	Thr	Leu	Gly	Ser	Leu	Ser	Asp	Ala	Val	Val	Gly	Leu	Thr	Tyr
305					310					315					320
Ser	Gln	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Ala	Val	His	Gly	Ala	He	Ser
				325					330					335	
Thr	Leu	Asn	Gln	Val	Ser	Gly	Trp	Ala	Lys	Ser	Gln	Va]	He	He	Leu
			340					345					350		
Ser	Ala	Lys	Tyr	Leu	Ala	His	Glu	Lys	Val	Leu	Ser	Phe	Tyr	Asn	Val
		355					360					365			
Ser	Gln	Met	Gly	Ala	Leu	Leu	Ala	Gly	Val	Ser	Thr	Gln	Ala	Phe	Cys
	370					375					380				
Ser	Met	Lys	Arg	Lys	Asp	He	Ser	Gln	Val	Leu	Arg	Ser	Ala	Val	Ser
385					390					395					400
Gln	Tyr	Val	Ser		Leu	Ser	Pro	Ala	Gln	Gln	Gln	Gly	He	Leu	Ser
				405					410					415	
Lys	Met	Val		Ala	Glu	Asp	Thr		Pro	Gly	He	Val		He	Gln
			420	_			_	425					430		_
Gly	Ala		Phe	Lys	Glu	Val		Leu	Phe	Asp	Leu		Arg	Gln	Pro
61	DI	435	6	T)	17 1		440			0.1		445		•	
GIy		Asn	Ser	lhr	Val		Lys	Asp	Lys	Glu		G1 y	Arg	Ser	GIn
4.7	450	DI.		т	C1	455				m	460			Б	6.1
	Leu	Phe	Leu	Tyr		Leu	Leu	Leu	Lys		Ihr	Arg	Arg	Pro	
465	Lan	Lau	C	A 1	470	C1	1	V - 1	1	475	W. 1	T1 -	C	C	480
GIU	Leu	Leu	ser		GIY	GIII	Leu	val		GIV	vaı	ınr	Cys	Ser	HIS
11.	Acn	A 1 a	Mo+	485	The	A = ==	Dha	Dh a	490	<b>11</b> ~	U; -	Dl	C)	495	Dl
116	ush	N14	мет 500	oe1	1111	ush	гие	505	Leu	MIS	nis	rne	510	Asp	rne
Gln	Asn	Aen		Ala	Leu	Lov	Sor		Tyr	Cln	Va 1	Acn		Lou	۸1.

		515					520					525			
Trp	Lys	Tyr	Trp	Glu	Val	Ser	Arg	Leu	Ser	Met	Pro	Pro	Phe	Leu	Leu
	530					535					540				
Ala	Ala	Leu	Pro	Ala	Arg	Tyr	Leu	Ala	Ser	Val	Pro	Ala	Ser	Gln	Cys
545					550					555					560
Val	Pro	Phe	Leu	He	Ser	Leu	Gly	Lys	Ser	Trp	Leu	Asp	Ser	Leu	Val
				565					570					575	
Leu	Asp	Ser	His	Lys	Lys	Thr	Ser	Val	Leu	Arg	Lys	Val	Gln	Gln	Cys
			580					585					590		
Leu	Asp	Asp	Ser	He	Ala	Asp	Glu	Tyr	Thr	Val	Asp	Ile	Met	Gly	Asn
		595					600					605			
Leu	Leu	Cys	His	Leu	Pro	Ala	Ala	He	lle	Asp	Arg	Gly	lle	Ser	Pro
	610					615					620				
Arg	Ala	Trp	Ala	Thr	Ala	Leu	His	Gly	Leu	Arg	Asp	Cys	Pro	Asp	Leu
625					630					635					640
Asn	Pro	Glu	Gln	Lys	Ala	Ala	Val	Arg	Leu	Lys	Leu	Leu	Gly	Gln	Tyr
				645					650					655	
Gly	Leu	Pro	Gln	His	Trp	Thr	Ala		Thr	Thr	Lys	Asp		Gly	Pro
			660					665					670		
Phe	Leu		Leu	Phe	Ser	Gly		Glu	Leu	Ser	Ser		Ala	Thr	Lys
D.	Б.	675	7.1			0.1	680		0	,		685		mı	
Phe		Glu	He	Leu	Leu		Ala	Ala	Ser	Lys		Ala	Arg	Thr	Leu
n.	690		C1	DI	ĭ	695	A 1	V . 1	DI	C1	700	v i		4	C
	ınr	Lys	Glu	Pne		irp	Ala	vai	Pne		ser	vai	Arg	Asn	
705 Sor	Acn	Lvc	11e	Dro	710 Sor	Tun	Acn	Dro	Mot	715 Pro	Cly	Cvc	Hic	Cly	720 Val
361	ush	Lys	.116	725	361	1 y 1	nsp	110	730		Oly	Cys	1112	735	
Val	Ala	Pro	Ser		Asn	Asn	11e	Phe			Ala	Glu	Ala		
141	MIG	110	740	501	пэр	nsp.	110	745	Lys	Leu	MIG	oru	750	АЗП	MIG
Cvs	Trp	Ala	Leu	Glu	Asp	Leu	Arg		Met	Glu	Glu	Asp		Phe	He
0,0	,6	755	200			200	760	0,0	,,,,,	0.0	0.0	765	• • • •	•	•••
Arg	Thr		Glu	Leu	Leu	Gly		Val	Gln	Glv	Phe		Arg	Pro	Gln
Ü	770					775				-	780		Ü		
Leu		Thr	Leu	Lys	Glu		Ala	Пe	Gln	Val		Asp	Met	Pro	Ser
785					790					795	-	-			800
Tvr	Trp	Ara	Glu	Hie	Hie	Tle	Val	Ser	Leu	GLv	Ara	Tle	Ala	Len	Ala

				805					810					815	
Leu	Asn	${\tt Glu}$	Ser	Glu	Leu	Glu	Gln	Leu	Asp	Leu	Ser	Ser	He	Asp	Thr
			820					825					830		
Val	Ala	Ser	Leu	Ser	Trp	Gln	Thr	Glu	Trp	Thr	Pro	Gly	Gln	Ala	Glu
		835					840					845			
Ser	He	Leu	Gln	Gly	Tyr	Leu	Asp	Asp	Ser	Gly	Tyr	Ser	Πle	Gln	Asp
	850					855					860				
Leu	Lys	Ser	Phe	His	Leu	Val	Gly	Leu	Gly	Ala	Thr	Leu	Cys	Ala	He
865					870					875					880
Asn	Ile	Thr	Glu	Ile	Pro	Leu	Ile	Lys	Ile	Ser	Glu	Phe	Arg	Val	Val
				885					890					895	
Val	Ala	Arg	He	Gly	Thr	Leu	Leu	Cys	Ser	Thr	His	Val	Leu	Ala	Glu
			900					905					910		
Phe	Lys	Arg	Lys	Ala	Glu	Val	Val	Phe	Gly	Asp	Pro	Thr	Glu	Trp	Thr
		915					920					925			
Ser	Ser	Val	Leu	Gln	Glu	Leu	Gly	Thr	He	Ala	Ala	Gly	Leu	Thr	Lys
	930					935					940				
Ala	Glu	Leu	Arg	Met	Leu	Asp	Lys	Asp	Leu	Met	Pro	Tyr	Phe	G1n	Pro
945					950					955					960
Ser	Ala	lle	Lys	Cys	Leu	Pro	Asp	G1u	He	Phe	Lys	Glu	Leu	Ser	Ala
				965					970					975	
Glu	61n	He	Ala	Ser	Leu	Gly	Pro	Glu	Asn	Ala	Ala	Ala	Val	Thr	His
			980			•		985					990		
Ala	GIn	Arg	Arg	Arg	Leu	Ser	Pro	Leu	Gln	Leu	Gln	Ser	Leu	Gln	Gln
		995					1000				]	1005			
Ala	Leu	Asp	Gly	Ala	Lys	Thr	His	Ser	Trp	Gln	Asp	Ala	Pro	Ala	Ser
1	010				]	1015					1020				
Ala	Gly	Pro	Thr	Arg	Thr	Ser	Ser	Ser	Arg	Ser	Pro	Ala	Gly	Ala	Leu
1025	5			]	1030					1035				J	040
Gln	Ser	Trp	Gly	Leu	Trp	Leu	Gly	Cys	Pro	Leu	Leu	Val	Leu	Met	Ala
			]	045				]	050				]	055	
Lys	Leu	Leu	Trp												
		]	1060												

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<212> PRT
<213> Homo sapiens
<400> 3745
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Glu Pro Ala Leu Ile Ser Lys His Leu Asn Val Ile Glu Gln Lys Arg
             20
                                 25
                                                      30
Ile Asp Lys Leu Met Ile Glu Thr Val Asp Pro Asp Asn Arg Ser Lys
         35
                             40
                                                  45
Phe Gly Val Asn Ile Ile Leu Gly Ile Ser Phe Ala Val Cys Lys Ala
    50
                         55
                                              60
Gly Ala Ala Glu Lys Gly Phe Ser Leu Leu Ser Gln Asn Cys Glu Phe
65
                     70
                                          75
                                                              80
Ala Gly Asn Ser Glu Gly Ile Leu Leu Val Pro Ala Phe Thr Val Thr
                                     90
Ser Asn Gly Ser Gln Ser Gly Asn Lys Leu Ala Val
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                                105
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                                      10
                                                          15
Gln Leu Ser Val His Asp Ala Leu IIe Leu Ser Gln Pro Val Ser Thr
                                 25
             20
Pro Leu Pro Leu Ser Gly Ala Asn Phe Ser Thr Leu Leu Met Asn Leu
                             40
Gly Pro Glu Asn Cys Ala Thr Leu Leu Leu Phe Val Leu Leu Glu Ser
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Lys lle Leu Leu His Ser Leu Arg Pro Ala Val Leu Thr Gly Val Ala

60

65					70					75					80
Glu	Ala	Val	Val	Ala	Met	He	Phe	Pro	Phe	Gln	Trp	Gln	Cys	Pro	Tyr
				85					90					95	
11e	Pro	Leu	Cys	Pro	Leu	Ser	Leu	Ala	Ala	Val	Leu	Ser	Ala	Pro	Leu
			100					105					110		
Pro	Phe	lle	Val	Gly	Val	Asp	Ser	Arg	Tyr	Phe	Asp	Leu	His	Asp	Pro
		115					120					125			
Pro	Gln	Asp	Val	Val	Cys	lle	Asp	Leu	Asp	Thr	Asn	Met	Leu	Tyr	Val
	130					135					140				
Ser	Asp	Glu	Lys	Lys	Asn	Met	Asn	Trp	Lys	Gln	Leu	Pro	Lys	Lys	Pro
145					150					155					160
Cys	Lys	Asn	Leu	Leu	Ser	Thr	Leu	Lys	Lys	Leu	Tyr	Pro	Gln	Leu	Ser
				165					170					175	
Ser	Val	His	Gln	Lys	Thr	Gln	Glu	Gly	Ser	Ala	He	Asp	Met	Thr	Pro
			180					185					190		
He	Glu	Ala	Asp	Phe	Ser	Trp	Gln	Lys	Lys	Met	Thr	Gln	Leu	Glu	Met
		195					200					205			
Glu	lle	Gln	Glu	Ala	Phe	Leu	Arg	Phe	Met	Ala	Ser	lle	Leu	Lys	Gly
	210					215					220				
Tyr	Arg	Thr	Tyr	Leu	Arg	Pro	He	Thr	Glu	Ala	Pro	Ser	Asn	Lys	Ala
225					230					235					240
Thr	Ala	Ala	Asp	Ser	Leu	Phe	Asp	Arg	Gln	Gly	Phe	Leu	Lys	Ser	Arg
				245					250					255	
Asp	Arg	Ala	Tyr	Ala	Lys	Phe	Tyr	Thr	Leu	Leu	Ser	Lys	Thr	Gln	lle
			260					265					270		
Phe	lle	Arg	Phe	lle	Glu	Glu	Cys	Ser	Phe	Val	Ser	Asp	Lys	Asp	Thr
		275					280					285			
Gly	Leu	Ala	Phe	Phe	Asp	Asp	Cys	He	Glu	Lys	Leu	Phe	Pro	Asp	Lys
	290					295					300				
Gly	Thr	Glu	Lys	Thr	Asp	Lys	Val	Asp	Phe	Asp	Ser	Ala	Glu	Asp	Thr
305					310					315					320
Arg	Leu	He	Glu	Leu	Asp	Asp	Ser	Gln	Lys	Gly	Glu	His	Thr	Val	Phe
				325					330					335	
He	Met	Pro	Pro	Glu	Pro	Pro	Pro	Asp	Asp	Gly	Lys	Asp	Leu	Ser	Pro
			340					345					350		
Lys	Tyr	Ser	Tvr	Lys	Tyr	Phe	Pro	Arg	Leu	Asp	Leu	Lys	Leu	Phe	Asp

		355					360					365			
Arg	Pro	Gln	Glu	Leu	Lys	Leu	Cys	Phe	Ser	Arg	His	Pro	Thr	Gly	Asn
	370					375					380				
Ser	He	Thr	Lys	Ser	Pro	Pro	Leu	Met	Ala	Lys	Arg	Thr	Lys	Gln	Glu
385					390					395					400
11e	Lys	Thr	Ala	His	Lys	Leu	Ala	Lys	Arg	Cys	Tyr	Thr	Asn	Pro	Pro
				405					410					415	
Gln	Trp	Ala	Lys	Cys	Leu	Phe	Ser	His	Cys	Tyr	Ser	Leu	Trp	Phe	He
			420					425					430		
Cys	Leu	Pro	Ala	Tyr	Val	Arg	Val	Ser	His	Pro	Lys	Val	Arg	Ala	Leu
		435					440					445			
Gln	Gln	Ala	Tyr	Asp	Val	Leu	He	Lys	Met	Arg	Lys	Thr	Asp	Val	Asp
	450					455					460				
Pro	Leu	Asp	Glu	Va1	Cys	Tyr	Arg	Va]	Val	Met	Gln	Leu	Cys	Gly	Leu
465					470					475					480
Trp	Gly	His	Pro	Val	Leu	Ala	Val	Arg	Val	Leu	Phe	Glu	Met	Lys	Thr
				485					490					495	
Ala	Arg	He		Pro	Asn	Ala	Ile		Tyr	Gly	Tyr	Tyr	Asn	Lys	Val
			500					505					510		
Val	Leu		Ser	Pro	Trp	Pro		Ser	Thr	Arg	Ser		Ile	Phe	Leu
		515					520			_		525			
Trp		Lys	Val	Arg	Asn		Val	Arg	Gly	Leu		GIn	Phe	Arg	Gln
D	530	,	1	TU	17 3	535		C	61	., 1	540	0	7. 1	0	0.1
	Leu	Lys	Lys	Inr		GIn	Arg	Ser	GIn		Ser	Ser	He	Ser	
545	C15	Com	Aan	C1.5	550	Т	C1	C	1	555	C1	1	31.	1	560
GIY	GIII	Sel	аѕр	565	GIY	lyr	GIY	ser	570		GIU	Leu	lle	Lys 575	Asp
Asn	Ala	Glu	Πο		Val	Pro	Glu	Glu	0.0		Δla	Ara	Glu		110
nsp ·	AIG	Oju	580	1113	, 41	110	Olu	585	OIII	Ala	Ala	Λig	590	Leu	116
Thr	Lvs	Thr		Met	Gln	Thr	Glu		Val	Cvs	Asn	Ala	Ser	Ala	He
	2,0	595	2,0		01		600	014	,	0,0	пор	605	001	1110	1,10
Va]	Ala		His	Ser	G1n	Pro		Pro	Glu	Pro	His		Pro	Thr	Glu
	610	-				615		-		-	620				- 2 - 2
Pro		Ala	Trp	Gly	Ser		He	Val	Lys	Val		Ser	Gly	He	Phe
625			•	•	630				-	635			,		640
	Val	Asn	Ser	Arg		Ser	Ser	Thr	G1 v		He	Ser	Asn	Val	

				645					650					655	
Phe	Ser	Thr	Gln	Asp	Pro	Val	Glu	Asp	Ala	Val	Phe	Gly	Glu	Ala	Thr
			660					665					670		
Asn	Leu	Lys	Lys	Asn	Gly	Asp	Arg	Gly	Glu	Lys	Arg	Gln	Lys	His	Phe
		675					680					685			
Pro	Glu	Arg	Ser	Cys	Ser	Phe	Ser	Ser	Glu	Ser	Arg	Ala	Gly	Met	Leu
	690					695					700				
Leu	Lys	Lys	Ser	Ser	Leu	Asp	Ser	Asn	Ser	Ser	Glu	Met	Ala	Ile	Met
705					710					715					720
Met	Gly	Ala	Asp	Ala	Lys	Ile	Leu	Thr	Ala	Ala	Leu	Thr	Cys	Pro	Lys
				725					730					735	
Thr	Ser	Leu	Leu	His	He	Ala	Arg	Thr	His	Ser	Phe	Glu	Asn	Val	Ser
			740					745					750		
Cys	His	Leu	Pro	Asp	Ser	Arg	Thr	Cys	Met	Ser	Glu	Ser	Thr	Trp	Asn
		755					760					765			
Pro	Glu	His	Arg	Ser	Ser	Pro	Val	Pro	Glu	Met	Leu	Glu	Glu	Ser	Gln
	770					775					780				
Glu	Leu	Leu	Glu	Pro	Val	Val	Asp	Asp	Val	Pro	Lys	Thr	Thr	Ala	Thr
785					790					795					800
Val	Asp	Thr	Tyr		Ser	Leu	Leu	Ser		Ser	Asn	Ser	Asn		Ser
				805					810					815	
Arg	Asp	Leu		Thr	Val	Ser	Lys		Leu	Arg	Asn	Lys		Ser	Ser
			820					825					830	m.	
Leu	Tyr		He	Ala	Lys	Val		GIn	Arg	Glu	Asp		,G1u	Thr	Gly
		835	,	C	,	,	840	m)	0.1	0	m.	845	61		T)
Leu		Pro	Leu	Ser	Leu	Leu	Ala	Ihr	Glu	Cys		61 y	Gly	Lys	lhr
D	850	C	61	Α	1	855	DI.	C	D	17 - 1	860	A 1 -	Δ	A	1
	Asp	Ser	GIU	Asp		Leu	rne	Ser	rro		11e	Ala	Arg	Asn	
865	A	C1	11.	C1	870	Т	Mad	Λ	Lan	875	Com	Dua		C1	880
ма	ASP	Glu	116		ser	Tyr	мет	ASI	890	Lys	Set.	110	Leu	895	261
Lve	Sor	Sor	Sor	885	Clu	Lou	Hic	Ara		Clu	Acn	Ara	Clu		61 <sub>v</sub>
LyS	ser	ser	900	мет	010	Leu	ш1\$	905	01 n	GIU	ASH	w.g	910	ser	оту
Met	The	The		Pho	110	His	Δla		Glo	Ara	Ara	Sor		Leu	Pro
are t	1111	915	AIG	1116	116	1119	920	Leu	O I U	vn R	m g	925	OG1	Leu	110
يرم ا	Asn		G1v	Sor	Pro	Ala		Glu	Aen	Pro	Glu		Glu	Lve	Sar

	930					935					940				
Ser	Pro	Ala	Val	Ser	Arg	Ser	Lys	Thr	Phe	Thr	Gly	Arg	Phe	Lys	Gln
945					950					955					960
Gln	Thr	Pro	Ser	Arg	Thr	His	Lys	Glu	Arg	Ser	Thr	Ser	Leu	Ser	Ala
				965					970					975	
Leu	Val	Arg	Ser	Ser	Pro	His	Gly	Ser	Leu	Gly	Ser	Val	Val	Asn	Ser
			980					985					990		
Leu	Ser	Gly	Leu	Lys	Leu	Asp	Asn	lle	Leu	Ser	Gly	Pro	Lys	He	Asp
		995					1000					1005			
Val	Leu	Lys	Ser	Gly	Met	Lys	Gln	Ala	Ala	Thr	Val	Ala	Ser	Lys	Met
]	1010					1015					1020				
Trp	Val	Ala	Val	Ala	Ser	Ala	Tyr	Ser	Tyr	Ser	Asp	Asp	Glu	Glu	Glu
1028	5				1030					1035				]	1040
Thr	Asn	Arg	Asp	Tyr	Ser	Phe	Pro	Ala	Gly	Leu	Glu	Asp	His	He	Leu
			]	1045					1050				]	1055	
Gly	Glu	Asn	He	Ser	Pro	Asn	Thr	Ser	He	Ser	Gly	Leu	Val	Pro	Ser
			1060					1065					1070		
Glu	Leu	Thr	Gln	Ser	Asn	Thr	Ser	Leu	G1 y	Ser	Ser	Ser	Ser	Ser	G1 y
		1075					1080					1085			
Asp	Val	Gly	Lys	Leu	His	Tyr	Pro	Thr	Gly	Glu	Val	Pro	Phe	Pro	Arg
]	1090					1095					1100				
G1y	Met	Lys	Gly	Gln	Asp	Phe	Glu	Lys	Ser	Asp	His	G1 y	Ser	Ser	Gln
1105	5				1110					1115				]	1120
Asn	Thr	Ser			Ser	lle	Tyr	Gln	Asn	Cys	Ala	Met			Leu
				1125					1130					1135	
Met	Ser	Ser	Cys	Ser	Gln	Cys	Arg	Ala	Cys	Gly	Ala	Leu	Val	Tyr	Asp
			1140					1145					1150		
Glu		lle	Met	Ala	Gly			Ala	Asp	Asp			Leu	Asn	Thr
		1155					1160					1165			
		Pro	Phe	Cys			Asn	Phe	Leu			Leu	Asn	lle	Glu
	1170					1175		_			1180			_	
		Asp	Leu			Ser	Ala	Ser			Leu	Lys	Pro		
1189					1190		٥.			1195					1200
Ser	G1y	Asp			GIn	Ser	Gly			Pro	Leu	Ala			Ser
			1	1205					1210					1215	

Leu	Glu	His	Lys	Pro	Val	Ser	Ser	Leu	Ala	Glu	Pro	Asp	Leu	lle	Asn
			1220					1225				ļ	1230		
Phe	Met	Asp	Phe	Pro	Lys	His	Asn	Gln	He	He	Thr	Glu	Glu	Thr	Gly
	j	235					1240					1245			
Ser	Ala	Val	Glu	Pro	Ser	Asp	Glu	lle	Lys	Arg	Ala	Ser	Gly	Asp	Val
1	250					1255					1260				
Gln	Thr	Met	Lys	He	Ser	Ser	Val	Pro	Asn	Ser	Leu	Ser	Lys	Arg	Asn
1265	5				1270					1275				]	1280
Val	Ser	Leu	Thr	Arg	Ser	His	Ser	Val	Gly	Gly	Pro	Leu	Gln	Asn	Ile
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Asp	Phe	Thr	Gln	Arg	Pro	Phe	His	Gly	He	Ser	Thr	Val	Ser	Leu	Pro
			1300					1305					1310		
Asn	Ser	Leu	Gln	Glu	Val	Val	Asp	Pro	Leu	Gly	Lys	Arg	Pro	Asn	Pro
	1	1315					1320					1325			
Pro	Pro	Val	Ser	Val	Pro	Tyr	Leu	Ser	Pro	Leu	Val	Leu	Arg	Lys	Glu
]	1330					1335					1340				
Leu	Glu	Ser	Leu	Leu	Glu	Asn	Glu	Gly	Asp	Gln	Val	lle	His	Thr	Ser
1345	5				1350					1355					1360
Ser	Phe	He	Asn	Gln	His	Pro	He	lle	Phe	Trp	Asn	Leu	Val	Trp	Tyr
				1365					1370				]	1375	
Phe	Arg	Arg	Leu	Asp	Leu	Pro	Ser	Asn	Leu	Pro	Gly	Leu	He	Leu	Thr
			1380					1385					1390		
Ser	Glu	His	Cys	Asn	Glu	Gly	Val	Gln	Leu	Pro	Leu	Ser	Ser	Leu	Ser
		1395					1400					1405			
Gln	Asp	Ser	Lys	Leu	Val	Tyr	11e	Gln	Leu	Leu	Trp	Asp	Asn	He	Asn
]	1410					1415					1420				
Leu	His	Gln	Glu	Pro	Arg	Glu	Pro	Leu	Tyr	Val	Ser	Trp	Arg	Asn	Phe
1428	5				1430					1435					1440
Asn	Ser	Glu	Lys	Lys	Ser	Ser	Leu	Leu	Ser	Glu	Glu	Gln	Gln	Glu	Thr
				1445					1450					1455	
Ser	Thr	Leu	Val	Glu	Thr	Пе	Arg	Gln	Ser	He	G1n	His	Asn	Asn	Val
			1460					1465					1470		
Leu	Lys	Pro	Пе	Asn	Leu	Leu	Ser	Gln	Gln	Met	Lys	Pro	Gly	Met	Lys
		1475					1480					1485			
Arg	Gln	Arg	Ser	Leu	Tyr	Arg	Glu	Пе	Leu	Phe	Leu	Ser	Leu	Val	Ser
]	1490					1495					1500				

Leu Gly Arg Glu Asn Ile Asp Ile Glu Ala Phe Asp Asn Glu Tyr Gly Ile Ala Tyr Asn Ser Leu Ser Ser Glu Ile Leu Glu Arg Leu Gln Lys lle Asp Ala Pro Pro Ser Ala Ser Val Glu Trp Cys Arg Lys Cys Phe Gly Ala Pro Leu Ile 

<210> 3747

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3747 Met Tyr Val Phe Gln Leu Phe Asp Tyr Tyr Ser Ala Ser Gly Thr Thr Leu Leu Trp Gln Ala Phe Trp Glu Cys Val Val Val Val Trp Val Tyr Gly Ala Asp Arg Phe Thr Asp Asp Ile Ala Cys Met Ile Gly Tyr Arg Pro Cys Pro Trp Met Lys Trp Cys Trp Ser Phe Phe Thr Pro Leu Val Cys Met Gly 11e Phe 11e Phe Asn Val Val Tyr Tyr Lys Pro Leu Val Tyr Lys Asn Thr Asn Val Tyr Pro Trp Trp Gly Glu Ala Met Gly Trp Ala Phe Val Leu Ser Ser Met Leu Cys Met Pro Leu His Leu Leu Gly Cys Leu Leu Arg Ala Lys Gly Thr Met Ala Glu Cys Trp Lys His Leu 

Ala Asp Val Arg Gly Leu Thr Thr Leu Thr Pro Val Ser Glu Ser Ser 

Thr Gln Pro Ile Trp Gly Leu His His Leu Glu Tyr Arg Ala Gln Asp

Lys Val Val Val Glu Ser Val Met Gly Gln Leu Ser Ser His His 170 165 Gln Leu Thr Ser Gly Leu Trp Gly Lys Arg Leu Gln Tyr Ser Ile Leu 180 185 190 Gly Val Trp Ala Ala Asn Leu Ala Cys Ser Gly Phe Pro Pro Cys Ala 200 205 Leu Gly Trp Ala His Pro Arg Glu Gly Thr Pro Asp Thr Ala Pro Thr 215 220 Ser Arg Leu Lys Ala Asp Ala Leu Pro Ala Pro Pro Val Phe Cys Val 225 230 235 240 Ala Ala Leu Thr His Val Cys Leu Ser Arg Pro Val Pro Arg Arg Leu 245 250 Ser Asp Pro Lys Lys Gly Phe Pro Asp Thr Arg Thr Glu Ala Gly Gly 260 265 270 Leu Gly Leu Gly Glu Gly Gly Pro Ala Gly Thr Phe Leu Leu Cys 275 280 285

<210> 3748

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3748

Met Val Ser Val Phe Arg Ser Cys Asp Leu Pro Thr Leu Ala Ser Gln

1 5 10 15

Arg Ala Gly Ile Ile Gly Val Ser His Cys Ala Arg Pro Thr Val Arg

Arg Ala Gly He He Gly Val Ser His Cys Ala Arg Pro Inr Val Arg

Phe Phe Leu Phe Leu Phe Phe Phe Phe Glu Met Glu Ser Ser Val 35 40 45

Thr Arg Leu Glu Cys Ser Asp Val IIe Ser Ala His His Asn Leu Arg 50 55 60

Pro Pro Gly Ser Ser Asp Ser Pro Ala Leu Asp Ser Gln Val Ala Arg
65 70 75 80

lle Thr Gly Met Arg His His Thr Gln Leu lle Phe Val Phe Leu Val

85 90 95

Glu Thr Gly Phe His His Ile Gly Gln Asp Gly Leu His Leu Leu Thr Ser <210> 3749 <211> 1445 <212> PRT <213> Homo sapiens <400> 3749 Met Gly Asn Leu Val Ile Pro Leu Gly Lys Gly Arg Ala Gly Arg Val Glu Ser Gly Gln Arg Ile Pro Pro Pro Ala Pro Arg Pro Ser Val Glu Cys Thr Gly Asp Asp Ile Ala Leu Gln Met Glu Lys Met Leu Phe Pro Leu Lys Ser Pro Ser Ala Thr Trp Leu Ser Pro Ser Ser Thr Pro Trp Met Met Asp Phe Ile Leu Thr Ser Val Cys Gly Leu Val Leu Leu Phe Leu Leu Leu Tyr Val His Ser Asp Pro Pro Ser Pro Pro Pro Gly Arg Lys Arg Ser Ser Arg Glu Pro Gln Arg Glu Arg Ser Gly Arg Ser Arg Ser Arg Lys Ile Ser Ala Leu Lys Ala Cys Arg Ile Leu Leu Arg Glu Leu Glu Glu Thr Arg Asp Leu Asn Tyr Leu Leu Glu Ser His Leu Arg Lys Leu Ala Gly Glu Gly Ser Ser His Leu Pro Leu Gly Gly Asp Pro Leu Gly Asp Val Cys Lys Pro Val Pro Ala Lys Ala His Gln Pro 

His Gly Lys Cys Met Gln Asp Pro Ser Pro Ala Ser Leu Ser Pro Pro

Ala	Pro		Ala	Pro	Leu	Ala		Thr	Leu	Ser	Pro		Pro	Met	Thr
		195	_				200	_			_	205	_		
Phe		Glu	Pro	Phe	Gly	Pro	His	Ser	Thr	Leu		Ala	Ser	Gly	Pro
	210					215					220				
Pro	Glu	Pro	Leu	Leu	Pro	Leu	Lys	Cys	Pro	Ala	Thr	Gln	Pro	His	Val
225					230					235					240
Val	Phe	Pro	Pro	Ser 245	Pro	Gln	Pro	His	Gl y 250	Pro	Leu	Ala	Ser	Ser 255	Pro
Pro	Pro	Pro	Asp	Ser	Ser	Leu	Ala	Gly	Leu	Gln	Cys	Gly	Ser	Thr	Thr
			260					265			-		270		
Cvs	Pro	Val	Pro	Gln	Ser	Ser	Pro	Leu	His	Asn	Gln	Val	Leu	Pro	Pro
		275					280					285			
Pro	Thr		Val	Ile	Ser	G1 y		G1 v	Cvs	Ser	Ser	Asp	Pro	Пе	Trp
	290					295			-		300				
Asp	Leu	Tyr	Cys	Trp	Arg	Glu	Ala	Ala	Thr	Thr	Trp	Gly	Leu	Ser	Thr
305					310					315					320
Tyr	Ser	His	Gly	Lys	Ser	Gln	Pro	Arg	His	Leu	Pro	Asp	His	Pro	Ser
				325					330					335	
Glu	Ala	Ser	Phe	Trp	Gly	Asp	Pro	Thr	Pro	Lys	His	Met	Glu	Val	Gly
			340					345					350		
Gly	Cys	Thr	Phe	Ile	His	Pro	Asp	Val	Gln	Lys	Leu	Leu	Glu	Thr	Leu
		355					360					365			
]]e	Ala	Lys	Arg	Ala	Leu	Met	Lys	Met	Trp	Gln	Glu	Lys	Glu	Arg	Lys
	370					375					380				
Arg	Ala	Asp	His	Pro	His	Met	Thr	Ser	Leu	Gly	Lys	Glu	Trp	Asp	Пе
385					390					395					400
Thr	Thr	Leu	Asn	Pro	Phe	Trp	Asn	Val	Ser	Thr	Gln	Pro	Gln	Gln	Leu
				405					410					415	
Pro	Arg	Pro	Gln	Gln	Val	Ser	Asp	Ala	Thr	Thr	Val	Gly	Asn	His	Leu
			420					425					430		
Gln	Gln	Lys	Arg	Ser	Gln	Leu	Phe	Trp	Asp	Leu	Pro	Ser	Leu	Asn	Ser
		435					440					445			
Glu	Ser	Leu	Ala	Thr	Thr	Val	Trp	Val	Ser	Arg	Asn	Pro	Ser	Ser	Gln
	450					455					460				
Asn	Ala	His	Ser	Val	Pro	Leu	Asp	Lys	Ala	Ser	Thr	Ser	Leu	Pro	Gly
465					470					475					480

Glu	Pro	Glu	Val	Glu	Ala	Ser	Ser	Gln	Leu	Ser	Gln	Ala	Pro	Pro	Gln
				485					490					495	
Pro	His	His	Met	Ala	Gln	Pro	Gln	His	Phe	Thr	Pro	Ala	Trp	Pro	Gln
			500					505					510		
Ser	Gln	Pro	Pro	Pro	Leu	Ala	Glu	Пe	Gln	Thr	Gln	Ala	His	Leu	Ser
		515					520					525			
Pro	Pro	Val	Pro	Ser	Leu	Gly	Cys	Ser	Ser	Pro	Pro	Gln	He	Arg	Gly
	530					535					540				
Cys	Gly	Ala	Ser	Tyr	Pro	Thr	Ser	Gln	Glu	Arg	Thr	Gln	Ser	Val	Ile
545					550					555					560
Pro	Thr	Gly	Lys	Glu	Tyr	Leu	Glu	Trp	Pro	Leu	Lys	Lys	Arg	Pro	Lys
				565					570					575	
Trp	Lys	Arg	Val	Leu	Pro	Ser	Leu	Leu	Lys	Lys	Ser	Gln	Ala	Val	Leu
			580					585					590		
Ser	Gln	Pro	Thr	Ala	His	Leu	Pro	Gln	Glu	Arg	Pro	Ala	Ser	Trp	Ser
		595					600					605			
Pro	Lys	Ser	Ala	Pro	lle	Leu	Pro	Gly	Val	Val	Thr	Ser	Pro	Glu	Leu
	610					615					620				
Pro	Glu	His	Trp	Trp	Gln	Gly	Arg	Asn	Ala	He	His	Gln	Glu	Gln	Ser
625					630					635					640
Cys	Gly	Pro	Pro	Ser	Arg	Leu	Gln	Ala	Ser	Gly	Asp	Leu	Leu	Gln	Pro
				645					650					655	
Asp	Gly	Glu	Phe	Pro	Gly	Arg	Pro	Gln	Ser	Gln	Ala	G]u	Asp	Thr	Gln
			660					665					670		
Gln	Ala	Leu	Leu	Pro	Ser	Gln	Pro	Ser	Glu	Phe	Ala	Gly	Lys	Gly	Arg
		675					680					685			
Lys	Asp	Val	Gln	Lys	Thr	Gly	Phe	Arg	Ser	Ser		Arg	Phe	Ser	Asp
	690					695					700				
Lys	Gly	Cys	Leu	Gly		Lys	Leu	G1 y	Pro		Pro	Ser	Arg	Asp	Gln
705					710					715					720
Gly	Ser	Gly	Arg		Ser	Va]	Lys	Ala		Asp	Glu	Asp	Lys		Ala
				725					730					735	
Glu	Gly	Asp		Arg	Arg	Ser	Trp		Tyr	Gln	Ser	Val		Ser	Thr
			740					745					750		
Pro	Arg		Pro	Asp	Lys	Glu		Leu	Glu	Asn	Lys		Gln	He	His
		755					760					765			

Leu	Ala	Arg	Lys	Val	G1 y	Glu	Пе	Lys	Glu	Gly	Trp	He	Pro	Met	Pro
	770					775					780				
Val	Arg	Arg	Ser	Trp	Leu	Met	Ala	Lys	Cys	Ala	Val	Pro	Lys	Ser	Asp
785					790					795	,				800
Thr	His	Ārg	Lys	Pro	Glu	Lys	Leu	Ala	Ser	Trp	Arg	Gly	Gly	Lys	Ala
				805					810					815	
His	Val	Asn	Thr	Ser	Gln	Glu	Leu	Ser	Phe	Leu	His	Pro	Cys	Thr	Gln
			820					825					830		
Gln	He	Leu	Glu	Val	His	Leu	Val	Arg	Phe	Cys	Val	Arg	His	Ser	Trp
		835					840					845			
Gly	Thr	Asp	Leu	Gln	Ser	Leu	Glu	Pro	He	Asn	Val	Trp	Ser	G]y	Glu
	850					855					860				
Ala	Gln	Ala	Pro	Pro	Phe	Pro	Gln	Ser	Thr	Phe	Thr	Pro	Trp	Ala	Ser
865					870					875					880
Trp	Val	Ser	Arg	Val	Glu	Ser	Val	Pro	Lys	Val	Pro	Ile	Phe	Leu	Gly
				885					890					895	
Lys	Arg	Pro	Gln	Ser	Gly	Pro	Gly	Asp	Asn	Arg	Thr	Thr	Ser	Lys	Ser
			900					905					910		
Val	Pro	Thr	Val	Ser	Gly	Pro	Leu	Ala	Ala	Pro	Pro	Pro	Glu	Gln	Glu
		915					920					925			
Gly	Val	Gln	Arg	Pro	Pro	Arg	Gly	Ser	Gln	Ser	Ala	Asp	Thr	His	Gly
	930					935					940				
Arg	Ser	Glu	Ala	Phe	Pro	Thr	Gly	His	Lys	Gly	Arg	Gly	Cys	Ser	Gln
945					950					955					960
Pro	Pro	Thr	Cys	Ser	Leu	Val	Gly	Arg	Thr	Trp	Gln	Ser	Arg	Thr	Val
				965					970					975	
Leu	Glu	Ser	Gly	Lys	Pro	Lys	Pro	Arg	Leu	Glu	Gly	Ser	Met	Gly	Ser
			980					985					990		
Glu	Met	Ala	Gly	Asn	Glu	Ala	Trp	Leu	G] u	Ser	Glu	Ser	Met	Ser.	Pro
		995					1000					1005			
Gly	Asp	Pro	Cys	Ser	Ser	Arg	Ala	Leu	Gln	Glu	Leu	Ser	11e	Gly	Ser
]	1010					1015					1020				
Gln	Trp	Ala	Arg	Ala	Glu	Asp	Ala	Leu	Gln	Ala	Leu	Lys	Val	Gly	Glu
1025	5				1030					1035					1040
Lys	Pro	Pro	Thr	Trp	Glu	Val	Thr	Leu	Gly	Ala	Ser	Val	Arg	Ala	Ser
				1045					1050					1055	

Ser	Gly	Ser	Val	Gln	Glu	Asp	Leu	Arg	Ser	Thr	G1 y	Ala	Leu	G1 y	Thr
		]	1060					1065				]	1070		
Thr	G1 y	Asn	Pro	Ser	Ala	Ser	Ser	Val	Cys	Val	Ala	Gln	Asp	Pro	Glu
	]	1075					080				]	085			
G1n	Leu	His	Leu	Lys	Ala	Gln	Val	Val	Ser	Glu	Пе	Ala	Leu	lle	Val
l	090				]	1095					100				
Gln	Val	Asp	Ser	Glu	Glu	Gln	Leu	Pro	Gly	Arg	Ala	Pro	Gly	11e	Leu
1105	5				1110					1115					1120
Leu	Gln	Asp	Gly	Ala	Thr	Gly	Leu	Cys	Leu	Pro	Gly	Arg	His	Met	Asp
				1125					1130					1135	
Met	Leu	Thr	Ala	Ala	Asp	Arg	Leu	Pro	Thr	Gln	Ala	Pro	Leu	Ser	Thr
			1140					1145					1150		
Ser	Gln	Ser	Val	Ser	Gly	Lys	Asn	Met	Thr	Ala	Ser	Gln	Gly	Pro	Cys
	]	1155					1160					1165			
Ala	Leu	Leu	Trp	Lys	Gly	Gly	Asp	Ser	Pro	Gly	Gln	Gln	Glu	Pro	Gly
J	170					1175					1180				
Ser	Pro	Lys	Ala	Lys	Ala	Pro	Gln	Lys	Ser	Gln	Lys	Thr	Leu	Gly	Cys
1185	5				1190					1195					1200
Ala	Gly	Lys	Gly	Glu	Ala	His	Arg	Arg	Pro	Arg	Thr	Gly	Glu	Gln	Gly
				1205					1210					1215	
His	Arg	Ser	Lys	Gly	Pro	Arg	Thr	Ser	Glu	Ala	Ser	Gly	Arg	Ser	His
			1220					1225					1230		
Pro	Ala	Gln	Ala	Arg	Glu	lle	Gly	Asp	Lys	Gln	Glu	Arg	Lys	Tyr	Asn
		1235					1240					1245			
Gln	Leu	Gln	Leu	Glu	Lys	Gly	Gln	Thr	Pro	Pro	Glu	Ser	His	Phe	Gln
1	1250					1255					1260				
Arg	Lys	He	Ser	His	His	Pro	Gln	Gly			Pro	Arg	Lys	Gly	G1 y
1265					1270					1275					1280
Thr	Arg	Trp	Glu	Asp	Val	Leu	Gln	Lys	Gly	Lys	Pro	Gly	Ala	Asp	Ala
				1285					1290					1295	
Phe	Gln			Gly	Ser	Gly	Pro	Pro	Arg	G1n	Phe	Met		Cys	Met
			1300					1305					1310		
Ala	Asp	Lys	Ala	Trp	Thr			Arg	Val	Va]		Gln	Пe	Leu	Val
		1315					1320					1325			
		Leu	Gly	Leu			G1 y	Arg	Gly			Glu	Val	Asn	Arg
1	1330					1335					1340				

His Lys Gly Asp Phe His Ala Gln Glu Asn Val Pro Ser Cys Cys His Arg Gly His Cys His Gln Glu Arg Ser Arg Glu Met Arg Ala Leu Ala Cys Ser Pro Lys Ala Thr Pro Lys Gly His His Cys Pro Val Lys Asn Arg Gly Ile Arg Asp Arg Asp Ser Ser Trp Ala Pro Pro Pro Arg Glu Pro Val Ser Pro Ala Gly Pro His His His Arg Pro Arg Met Ala Ser Thr Ser Gly Gly Pro His Pro Gln Leu Gln Glu Leu Met Ser Ala Gln Arg Cys Leu Ala Ser

<210> 3750

<211> 138

<212> PRT

<213> Homo sapiens

₹400> 3750

Met Gln Leu Leu Ala Gly Val Lys Leu Cys Thr Gly Arg Thr Leu Thr Asn His Pro His Tyr Glu Asp Ser Ser Leu Arg Glu Arg Thr Arg Ala Val Tyr Gln lle Tyr Ala Lys Arg Ala Pro Glu Glu Val His Ala Leu Leu Arg Ser Phe Gly Thr Asp Tyr Val Ile Leu Glu Asp Ser Ile Cys Tyr Glu Arg Arg His Arg Arg Gly Cys Arg Leu Arg Asp Leu Leu Asp lle Ala Asn Gly His Met Met Asp Gly Pro Gly Glu Asn Asp Pro Asp Leu Lys Pro Ala Asp His Pro Arg Phe Cys Glu Glu Ile Lys Arg Asn

Leu Pro Pro Tyr Val Ala Tyr Phe Thr Arg Val Phe Gln Asn Lys Thr Phe His Val Tyr Lys Leu Ser Arg Asn Lys 

<210> 3751

<211> 917

<212> PRT

<213> Homo sapiens

<400> 3751 Met Glu Asn Ile Leu Cys Phe Leu Asn Ser Tyr Thr Glu Thr Val Leu Ser Pro Asp Ser His Cys Leu Asp Ile Asp Leu Asn Phe Ile Cys Leu Ser Gly Leu Gly Leu Phe 11e Leu Tyr Leu Phe Tyr Met Val Leu Thr Leu Tyr Ser Ser Pro Thr Glu Lys Asn Asn Asp Thr Gln Lys His Gln Gly Arg Ala Arg Arg Lys Arg Lys Ser Val Thr Phe Lys Asp Arg Lys Ser Leu Gln Lys Glu Ala Glu Glu Glu Arg Lys Leu His Ser Phe Leu Lys Ser Phe Gly Pro Pro Val Ser Cys Ser Pro Leu Gly Gln His His Asp Thr Thr Leu Phe Arg Arg Leu Leu Cys Pro Asp Pro Val Cys Arg 

Ser Gly Ala Glu Ser Ser Phe Thr Leu Ala Ser Thr Pro Ser Ala Thr 

Val Cys Asn Arg Ala Thr Ala Asp Ile Gln Arg Leu Leu Ser Trp Glu

Ser Leu Lys Asp Ala Ala Pro Ser Val Ser Pro Leu Ala Ser Ser Ala

Thr Pro Glu Asp Leu Ile Leu Ser Ser Arg Pro Lys Pro Ser Pro Pro 

Pro	Pro	Leu	He	Leu	Ser	Pro	Asp	Leu	He	Thr	Thr	Leu	Ala	Asp	Leu
		195					200					205			
Phe	Ser	Pro	Ser	Pro	Leu	۸rg	Asp	Pro	Leu	Pro	Pro	Gln	Pro	Val	Ser
	210					215					220				
Pro	Leu	Asp	Ser	Lys	Phe	Pro	He	Asp	His	Ser	Pro	Pro	Gln	Gln	Leu
225					230					235					240
Pro	Phe	Pro	Leu	Leu	Pro	Pro	His	His	He	Glu	Arg	Val	Glu	Pro	Ser
				245					250					255	
Leu	Gln	Pro	Glu	Ala	Ser	Leu	Ser	Leu	Asn	Thr	Ile	Phe	Ser	Phe	Gly
			260					265					270		
Ser	Thr	Leu	Cys	Gln	Asp	He	Ser	Gln	Ala	Val	Asn	Arg	Thr	Asp	Ser
		275					280					285			
Cys	Ala	Arg	His	His	Gly	Pro	Pro	Thr	Pro	Ser	Ala	Leu	Pro	Pro	Glu
	290					295					300				
Asp	Cys	Thr	Val	Thr	Gln	Ser	Lys	Ser	Asn	Leu	Thr	Val	Leu	Lys	Thr
305					310					315					320
Phe	Pro	Glu	Met	Leu	Ser	Leu	G1 y	Gly	Ser	Gly	Gly	Ser	Ser	Thr	Ser
				325					330					335	
Ala	Pro	Thr	Thr	Lys	Gly	He	Asp		Ser	Cys	Pro	Ala	Ser	Ser	Glu
			340					345					350		
Phe	Ser		Trp	Gln	Pro	His		Lys	Asp	Ser	Phe		Ser	Asn	Phe
		355					360					365			
Val		Ser	Asp	Phe	Met	Glu	Glu	Leu	Leu	Thr		His	Ser	Ser	Glu
	370					375					380				
	Ser	Leu	Gly	Gly		Ser	Val	Ala	Asn		He	Gln	Pro	Val	
385					390			_		395					400
He	Ser	Phe	Leu		His	Asp	Пе	Pro		Leu	Leu	Glu	Arg		Val
			6.3	405	n.				410					415	
Lys	Arg	Arg		Asp	Phe	Leu	Met		Lys	Glu	Asn	Gly		Lys	Pro
61	6	101	420	æ.	61			425 D		Tr.	61		430		0
ы	Ser		Pro	Ihr	GIn	Leu	_	Pro	Asn	Lyn	GIn	_	Asn	Ser	Ser
		435	,	TI	C	T)	440	17 1				445	4.1	61	C
Arg		Met	Leu	ınr	ser	Thr	Ala	val	Lys	111 S		Leu	Ala	GIU	5er
Dt.	450	Dt	т	A1.	C	455	C1	1	1	C1.	460	C1.	11.2	7.7	11.7
	rro	rne	ırp	MIA		Lys	GIY	Lys	Leu		ırp	oin	nis	116	
465					470					475					480

Gln	Gln	Pro	Pro	Tyr	Ser	Lys	Cys	Phe	Glu	Asp	His	Leu	Glu	Gln	Lys
				485					490					495	
Tyr	Val	Gln	Leu	Phe	Trp	Gly	Leu	Pro	Ser	Leu	His	Ser	Glu	Ser	Leu
			500					505					510		
His	Pro	Thr	Val	Phe	Val	Gln	His	Gly	Arg	Ser	Ser	Met	Phe	Val	Phe
		515					520					525			
Phe	Asn	Gly	lle	Thr	Asn	Thr	Ser	Met	Ser	His	Glu	Ser	Pro	Val	Leu
	530					535					540				
Pro	Pro	Pro	Gln	Pro	Leu	Phe	Leu	Pro	Ser	Thr	Gln	Pro	Leu	Pro	Leu
545					550					555					560
Pro	Gln	Thr	Leu	Pro	Arg	Gly	Gln	Ser	Leu	His	Leu	Thr	Gln	Val	Lys
				565					570					575	
Ser	Leu	Ala	Gln	Pro	Gln	Ser	Pro	Phe	Pro	Ala	Leu	Pro	Pro	Ser	Pro
			580					585					590		
Leu	Phe	Leu	lle	Arg	Val	Cys	Gly	Val	Cys	Phe	His	Arg	Pro	Gln	Asn
		595					600					605			
Glu	Ala	Arg	Ser	Leu	Met	Pro	Ser	Glu	He	Asn	His	Leu	Glu	Trp	Asn
	610					615					620				
Val	Leu	Gln	Lys	Val	Gln	Glu	Ser	Val	Trp	G1 y	Leu	Pro	Ser	Val	Val
625					630					635				,	640
Gln	Lys	Ser	Gln	Glu	Asp	Phe	Cys	Pro	Pro	Ala	Pro	Asn	Pro	Val	Leu
				645					650					655	
Va]	Arg	Lys	Ser	Phe	Lys	Val	His	Val	Pro	He	Ser	He	He	Pro	Gly
			660					665					670		
Asp	Phe	Pro	Leu	Ser	Ser	Glu	Val	Arg	Lys	Lys	Leu	Glu	Gln	His	He
		675					680					685			
Arg	Arg	Arg	Leu	lle	Gln		Arg	Trp	Gly	Leu	Pro	Arg	Arg	He	His
	690					695					700				
Glu	Ser	Leu	Ser	Leu	Leu	Arg	Pro	Gln	Asn	Lys	lle	Ser	Glu	Leu	
705					710					715					720
Val	Ser	Glu	Ser		His	Gly	Pro	Leu		lle	Ser	Leu	Val	Glu	Gly
				725					730					735	
Gln	Arg	Cys		Va]	Leu	Lys	Lys		Ala	Ser	Ser	Phe		Arg	Ser
			740	_				745	_			_	750		
Phe	His		Arg	Ser	Ser	Asn		Leu	Ser	Met	Glu		Val	Gly	Asn
		755					760					765			

Tyr Gln Gly Cys Ser Gln Glu Thr Ala Pro Lys Asn His Leu Leu His Asp Pro Glu Thr Ser Ser Glu Glu Asp Leu Arg Ser Asn Ser Glu Arg Asp Leu Gly Thr His Met Met His Leu Ser Gly Asn Asp Ser Gly Val Arg Leu Gly Gln Lys Gln Leu Glu Asn Ala Leu Thr Val His Leu Ser Lys Lys Phe Glu Glu Ile Asn Glu Gly Arg Met Pro Gly Thr Val His Ser Ser Trp His Ser Val Lys Gln Thr Ile Cys Leu Pro Glu Lys Ser His Ser Gln 11e Lys His Arg Asn Leu Ala Ala Leu Val Ser Glu Asp His Gly Val Asp Thr Ser Gln Glu Met Ser Phe Leu Ser Ser Asn Lys Gln Lys Met Leu Glu Ala His IIe Lys Ser Phe His Met Lys Pro IIe Leu Asn Leu Ser 11e 

<210> 3752

<211> 1318

<212> PRT

<213> Homo sapiens

<400> 3752

 Met
 Asp
 Arg
 GIn
 Cys
 Ser
 Glu
 Lys
 Pro
 His
 Ser
 Cys
 Thr
 Pro
 Thr
 Gly

 I
 Frage
 Ser
 Ala
 Val
 Ser
 Gln
 Asn
 Ser
 Arg
 Ile
 Ser
 Pro
 Pro
 Val

 Arg
 Thr
 Ser
 Met
 Lys
 Asp
 Ser
 Cys
 Met
 Glu
 Val
 His
 Gln
 Asp
 Ser

 Ala
 Arg
 Arg
 Arg
 Arg
 Trp
 Ser
 His
 Pro
 Thr
 Ile
 Leu
 Leu
 His
 Lys

	Gln	Ser	Ser	Gln	Ala	Thr	Leu	Met	Pro		Glu	His	Arg	Met	
65					70					75					80
Met	Gly	Glu	Ala	Tyr 85	Ser	Ala	Ala	Thr	Cys 90	Phe	Lys	Met	Leu	G1n 95	Asp
Met	Asn	Ser	Ala	Asp	Pro	Phe	His	Leu	Lys	Tyr	lle	lle	Lys	Lys	lle
			100					105					110		
Lys	Asn	Met	Ala	His	Gly	Ser	Pro	Lys	Leu	Val	Met	Glu	Thr	He	His
		115					120					125			
Asp	Tyr	Phe	He	Asp	Asn	Pro	Glu	Ile	Ser	Ser	Arg	His	Lys	Phe	Arg
	130					135					140				
Leu	Phe	Gln	Thr	Leu	Glu	Met	Val	Пе	Gly	Ala	Ser	Asp	Val	Leu	Glu
145					150					155					160
Glu	Thr	Trp	Glu	Lys	Thr	Phe	Thr	Arg	Leu	Ala	Leu	Glu	Asn	Met	Thr
				165					170					175	
Lys	Ala	Thr	Glu	Leu	Glu	Asp	lle	Tyr	Gln	Asp	Ala	Ala	Ser	Asn	Met
			180					185					190		
Leu	Val	Ala	He	Cys	Arg	His	Ser	Trp	Arg	Val	Val	Ala	Gln	His	Leu
		195					200					205			
Glu	Thr	Glu	Leu	Leu	Thr	Gly	Val	Phe	Pro	His	Arg	Ser	Leu	Leu	Tyr
	210					215					220				
Val	Met	Gly	Val	Leu	Ser	Ser	Ser	Glu	Glu	Leu	Phe	Ser	Gln	Glu	Asp
225					230					235					240
Lys	Ala	Cys	Trp	Glu	Glu	Gln	Leu	He	Gln	Met	Ala	He	Lys	Ser	Val
				245					250					255	
Pro	Phe	Leu	Ser	Thr	Asp	Val	Trp	Ser	Lys	Glu	Leu	Leu	Trp	Thr	Leu
			260					265					270		
Thr	Thr	Pro	Ser	Trp	Thr	Gln	Gln	Glu	Gln	Ser	Pro	Glu	Lys	Ala	Phe
		275					280					285			
Met	Phe	Thr	Tyr	Tyr	Gly	Leu	lle	Leu	Gln	Ala	Glu	Lys	Asn	Gly	Ala
	290					295					300				
Thr	Val	Arg	Arg	His	Leu	Gln	Ala	Leu	Leu	Glu	Thr	Ser	His	Gln	Trp
305					310					315					320
Pro	Lys	Gln	Arg	Glu	Gly	Met	Ala	Leu	Thr	Ser	Gly	Leu	Ala	Ala	Thr
				325					330					335	
Arg	His	Leu	Asp	Asp	Val	Trp	Ala	Val	Leu	Asp	Gln	Phe	Gly	Arg	Ser
			340					345					350		

Arg	Pro	He	Arg	Trp	Ser	Leu	Pro	Ser	Ser	Ser	Pro	Lys	Asn	Ser	Glu
		355					360					365			
Asp	Leu	Arg	Trp	Lys	Trp	Ala	Ser	Ser	Thr	He	Leu	Leu	Ala	Tyr	Gly
	370					375					380				
Gln	Val	Ala	Ala	Lys	Ala	Arg	Ala	His	He	Leu	Pro	Trp	Val	Asp	Asn
385					390					395					400
11e	Val	Ser	Arg	Met	Val	Phe	Tyr	Phe	His	Tyr	Ser	Ser	Trp	Asp	Glu
				405					410					415	
Thr	Leu	Lys	Gln	Ser	Phe	Leu	Thr	Ala	Thr	Leu	Met	Leu	Met	Gly	Ala
			420					425					430		
Val	Ser	Arg	Ser	Glu	Gly	Ala	His	Ser	Tyr	Glu	Phe	Phe	Gln	Thr	Ser
		435					440					445			
Glu	Leu	Leu	Gln	Cys	Leu	Met	Val	Leu	Met	Glu	Lys	Glu	Pro	Gln	Asp
	450					455					460				
Thr	Leu	Cys	Thr	Arg	Ser	Arg	Gln	Gln	Ala	Met	His	lle	Ala	Ser	Ser
465					470					475					480
Leu	Cys	Lys	Leu	Arg	Pro	Pro	He	Asp	Leu	Glu	Arg	Lys	Ser	Gln	Leu
				485					490					495	
Leu	Ser	Thr	Cys	Phe	Arg	Ser	Val	Phe	Ala	Leu	Pro	Leu	Leu	Лsp	Ala
Leu	Ser	Thr	Cys 500	Phe	Arg	Ser	Val	Phe 505	Ala	Leu	Pro	Leu	Leu 510	Лѕр	Ala
			500	Phe Thr				505					510		
			500					505					510		
Leu	Glu	Lys 515	500 His		Cys	Leu	Phe 520	505 Leu	Glu	Pro	Pro	Asn 525	510 Ile	Gln	Leu
Leu	Glu	Lys 515	500 His	Thr	Cys	Leu	Phe 520	505 Leu	Glu	Pro	Pro	Asn 525	510 Ile	Gln	Leu
Leu Trp	61u Pro 530	Lys 515 Val	500 His Ala	Thr	Cys Glu	Leu Arg 535	Phe 520 Ala	505 Leu Gly	Glu Trp	Pro Thr	Pro His 540	Asn 525 G1n	510 Ile Gly	Gln Trp	Leu Gly
Leu Trp	61u Pro 530	Lys 515 Val	500 His Ala	Thr Arg	Cys Glu	Leu Arg 535	Phe 520 Ala	505 Leu Gly	Glu Trp	Pro Thr	Pro His 540	Asn 525 G1n	510 Ile Gly	Gln Trp	Leu Gly
Leu Trp Pro 545	Glu Pro 530 Arg	Lys 515 Val Ala	500 His Ala Val	Thr Arg	Cys Glu His 550	Leu Arg 535 Cys	Phe 520 Ala Ser	505 Leu Gly Glu	Glu Trp His	Pro Thr Leu 555	Pro His 540 Gln	Asn 525 Gln Ser	510 11e Gly Leu	Gln Trp Tyr	Leu Gly Ser 560
Leu Trp Pro 545	Glu Pro 530 Arg	Lys 515 Val Ala	500 His Ala Val	Thr Arg Leu	Cys Glu His 550	Leu Arg 535 Cys	Phe 520 Ala Ser	505 Leu Gly Glu	Glu Trp His	Pro Thr Leu 555	Pro His 540 Gln	Asn 525 Gln Ser	510 11e Gly Leu	Gln Trp Tyr	Leu Gly Ser 560
Leu Trp Pro 545 Arg	Glu Pro 530 Arg	Lys 515 Val Ala Met	500 His Ala Val Glu	Thr Arg Leu Ala	Cys Glu His 550 Leu	Leu Arg 535 Cys Asp	Phe 520 Ala Ser	505 Leu Gly Glu Met	Glu Trp His Leu 570	Pro Thr Leu 555 Gln	Pro His 540 Gln Ser	Asn 525 Gln Ser Leu	510 The Gly Leu	Gln Trp Tyr Met 575	Leu Gly Ser 560 Gln
Leu Trp Pro 545 Arg	Glu Pro 530 Arg	Lys 515 Val Ala Met	500 His Ala Val Glu	Thr Arg Leu Ala 565	Cys Glu His 550 Leu	Leu Arg 535 Cys Asp	Phe 520 Ala Ser	505 Leu Gly Glu Met	Glu Trp His Leu 570	Pro Thr Leu 555 Gln	Pro His 540 Gln Ser	Asn 525 Gln Ser Leu	510 The Gly Leu	Gln Trp Tyr Met 575	Leu Gly Ser 560 Gln
Leu Trp Pro 545 Arg	Glu Pro 530 Arg Thr	Lys 515 Val Ala Met	500 His Ala Val Glu Ala 580	Thr Arg Leu Ala 565	Cys Glu His 550 Leu Glu	Leu Arg 535 Cys Asp	Phe 520 Ala Ser Phe	505 Leu Gly Glu Met Phe 585	Glu Trp His Leu 570 Leu	Pro Thr Leu 555 Gln Leu	Pro His 540 Gln Ser	Asn 525 Gln Ser Leu	510 He Gly Leu He Leu 590	Gln Trp Tyr Met 575 Tyr	Leu Gly Ser 560 Gln
Leu Trp Pro 545 Arg	Glu Pro 530 Arg Thr	Lys 515 Val Ala Met	500 His Ala Val Glu Ala 580	Thr Arg Leu Ala 565 Asp	Cys Glu His 550 Leu Glu	Leu Arg 535 Cys Asp	Phe 520 Ala Ser Phe	505 Leu Gly Glu Met Phe 585	Glu Trp His Leu 570 Leu	Pro Thr Leu 555 Gln Leu	Pro His 540 Gln Ser	Asn 525 Gln Ser Leu	510 He Gly Leu He Leu 590	Gln Trp Tyr Met 575 Tyr	Leu Gly Ser 560 Gln
Leu Trp Pro 545 Arg Asn	Glu Pro 530 Arg Thr Leu	Lys 515 Val Ala Met Thr Ala 595	500 His Ala Val Glu Ala 580 Ser	Thr Arg Leu Ala 565 Asp	Cys Glu His 550 Leu Glu Lys	Leu Arg 535 Cys Asp Leu Ala	Phe 520 Ala Ser Phe His 600	505 Leu Gly Glu Met Phe 585 Glu	Glu Trp His Leu 570 Leu Arg	Pro Thr Leu 555 Gln Leu Gln	Pro His 540 Gln Ser Arg	Asn 525 Gln Ser Leu His Ala 605	510 The Gly Leu The Leu 590 Val	Gln Trp Tyr Met 575 Tyr	Leu Gly Ser 560 Gln Ile
Leu Trp Pro 545 Arg Asn	Glu Pro 530 Arg Thr Leu	Lys 515 Val Ala Met Thr Ala 595	500 His Ala Val Glu Ala 580 Ser	Thr Arg Leu Ala 565 Asp	Cys Glu His 550 Leu Glu Lys	Leu Arg 535 Cys Asp Leu Ala	Phe 520 Ala Ser Phe His 600	505 Leu Gly Glu Met Phe 585 Glu	Glu Trp His Leu 570 Leu Arg	Pro Thr Leu 555 Gln Leu Gln	Pro His 540 Gln Ser Arg	Asn 525 Gln Ser Leu His Ala 605	510 The Gly Leu The Leu 590 Val	Gln Trp Tyr Met 575 Tyr	Leu Gly Ser 560 Gln Ile
Leu Trp Pro 545 Arg Asn Trp Cys	Glu Pro 530 Arg Thr Leu Met 610	Lys 515 Val Ala Met Thr Ala 595	500 His Ala Val Glu Ala 580 Ser Leu	Thr Arg Leu Ala 565 Asp	Cys Glu His 550 Leu Glu Lys Lys	Leu Arg 535 Cys Asp Leu Ala Phe 615	Phe 520 Ala Ser Phe His 600 Leu	505 Leu Gly Glu Met Phe 585 Glu Asn	Glu Trp His Leu 570 Leu Arg	Pro Thr Leu 555 Gln Leu Gln Asn	Pro His 540 Gln Ser Arg Gly 620	Asn 525 Gln Ser Leu His Ala 605 Tyr	510 Ile Gly Leu Ile Leu 590 Val	Gln Trp Tyr Met 575 Tyr His	Leu Gly Ser 560 Gln Ile Ser Pro

Leu	Cys	Gln	Asp	Pro	Asp	Arg	Ala	Thr	Gln	Arg	Cys	Ser	Leu	Glu	Gly
				645					650					655	
Ala	Ser	His	Leu	Tyr	Gln	Leu	Leu	Met	Cys	His	Lys	Thr	G1 y	Glu	Ala
			660					665					670		
Leu	Gln	Ala	Glu	Ser	G1n	Ala	Pro	Lys	Glu	Leu	Ser	Gln	Ala	His	Ser
		675					680					685			
Asp	Gly	Ala	Pro	Leu	Trp	Asn	Ser	Arg	Asp	Gln	Lys	Ala	Thr	Pro	Leu
	690					695					700				
Gly	Pro	Gln	Glu	Met	Ala	Lys	Asn	His	lle	Phe	Gln	Leu	Cys	Ser	Phe
705					710					715					720
G1n	Va]	He	Lys	Asn	Ile	Met	Gln	Gln	Leu	Thr	Leu	Ala	Glu	Leu	Ser
				725					730					735	
Asp	Leu	He	Trp	Thr	Ala	He	Asp	Gly	Leu	Gly	Ser	Thr	Ser	Pro	Phe
			740					745					750		
Arg	Val	Gln	Ala	Ala	Ser	Glu	Met	Leu	Leu	Thr	Ala	Val	G1n	Glu	His
		755					760					765			
Gly	Ala	Lys	Leu	Glu	He	Val	Ser	Ser	Met	Ala	Gln	Ala	lle	Arg	Leu
	770					775					780				
Arg	Leu	Cys	Ser	Val	His	lle	Pro	Gln	Ala	Lys	Glu	Lys	Thr	Leu	His
785					790					795					800
Ala	He	Thr	Leu	Leu	Ala	Arg	Ser	His	Thr	Cys	Glu	Leu	Val	Ala	Thr
				805					810					815	
Phe	Leu	Asn	He	Ser	11e	Pro	Leu,	, Asp	Ser	His	Thr	Phe	Gln	Leu	Trp
			820					825					830		
Arg	Ala	Leu	Gly	Ala	Glu	Gln	Pro	Thr	Ser	His	Leu	Val	Leu	Thr	Thr
		835					840					845			
Leu	Leu	Ala	Cys	Leu	Gln	Glu	Arg	Pro	Leu	Pro	Thr	Gly	Ala	Ser	Asp
	850					855					860				
Ser	Ser	Pro	Cys	Pro	Lys	Glu	Lys	Thr	Tyr	Leu	Arg	Leu	Leu	Λla	Ala
865					870					875					880
Met	Asn	Met	Leu	His	Glu	Leu	Gln	Phe	Ala	Arg	Glu	Phe	Lys	Gln	Ala
		,		885					890					895	
Val	Gln	Glu	Gly	Tyr	Pro	Lys	Leu	Phe	Leu	Ala	Leu	Leu	Thr	Gln	Met
			900					905					910		
His	Tyr	Val	Leu	Glu	Leu	Asn	Leu	Pro	Ser	Glu	Pro	Gln	Pro	Lys	Gln
		915					920					925			

Gln Ala	Gln	Glu	Ala	Ala	Val	Pro	Ser	Pro	Gln	Ser	Cys	Ser	Thr	Ser
930					935					940				
Leu Glu	Ala	Leu	Lys	Ser	Leu	Leu	Ser	Thr	Thr	Gly	His	Trp	His	Asp
945				950					955					960
Phe Ala	His	Leu	Glu	Leu	Gln	Gly	Ser	Trp	Glu	Leu	Phe	Thr	Thr	He
			965					970					975	
His Thr	Tyr	Pro	Lys	Gly	Val	Gly	Pro	Leu	Ala	Arg	Ala	Met	Val	Gln
		980					985					990		
Asn His	Cys	Arg	Gln	He	Pro	Ala	Val	Leu	Arg	Gln	Leu	Leu	Pro	Ser
	995				-	1000					1005			
Leu Gln	Ser	Pro	Gln	Glu	Arg	Glu	Arg	Lys	Val	Ala	lle	Leu	He	Leu
1010				]	1015					020				
Thr Lys	Phe	Leu	Tyr	Ser	Pro	Val	Leu	Leu	Glu	Val	Leu	Pro	Lys	Gln
1025				030					1035					040
Ala Ala	Leu	Thr	Val	Leu	Ala	Gln	Gly	Leu	His	Asp	Pro	Ser	Pro	Glu
		]	1045					1050					1055	
Val Arg	Val	Leu	Ser	Leu	Gln	Gly	Leu	Ser	Asn	lle	Leu	Phe	His	Pro
		1060					1065					1070		
										_		_		
Asp Lys	Gly	Ser	Leu	Leu	Gln	Gly	Gln	Leu	Arg	Pro	Leu	Leu	Asp	Ser
	Gly 1075	Ser	Leu	Leu		Gly 1080	Gln	Leu	Arg		Leu 1085	Leu	Asp	Ser
	1075					1080					1085			
	1075 Gln			Лsp		1080			Cys		1085			
Phe Phe	1075 Gln	Ser	Ser	Asp	GIn 1095	1080 Val	lle	Val	Cys	11e 1100	1085 Met	Gly	Thr	Val
Phe Phe	1075 Gln	Ser	Ser His	Asp	GIn 1095	1080 Val	lle	Val Gln	Cys	11e 1100	1085 Met	Gly	Thr Gln	Val
Phe Phe 1090 Ser Asp	1075 Gln Thr	Ser Leu	Ser His	Asp Arg	GIn 1095 Leu	1080 Val Gly	lle Ala	Val Gln	Cys Gly	11e 1100 Thr	1085 Met Gly	Gly Ser	Thr Gln	Val Ser 1120
Phe Phe 1090 Ser Asp 1105	1075 Gln Thr	Ser Leu Ala	Ser His	Asp Arg	GIn 1095 Leu	1080 Val Gly	lle Ala Ser	Val Gln	Cys Gly	11e 1100 Thr	1085 Met Gly	Gly Ser Glu	Thr Gln	Val Ser 1120
Phe Phe 1090 Ser Asp 1105	1075 Gln Thr Val	Ser Leu Ala	Ser His He	Asp Arg 1110 Ser	GIn 1095 Leu Thr	Val Gly Arg	lle Ala Ser	Val Gln Phe	Cys Gly H115 Phe	lle 1100 Thr Asn	Met Gly Asp	Gly Ser Glu	Thr Gln Arg	Val Ser 1120 Asp
Phe Phe 1090 Ser Asp 1105 Leu Gly	1075 Gln Thr Val	Ser Leu Ala	Ser His He	Asp Arg 1110 Ser	GIn 1095 Leu Thr	1080 Val Gly Arg	lle Ala Ser	Val Gln Phe	Cys Gly H115 Phe	lle 1100 Thr Asn	Met Gly Asp Leu	Gly Ser Glu	Thr Gln Arg	Val Ser 1120 Asp
Phe Phe 1090 Ser Asp 1105 Leu Gly	1075 Gln Thr Val	Ser Leu Ala Ala	Ser His 11e 1125 Ala	Asp Arg 1110 Ser Ala	GIn 1095 Leu Thr	Val Gly Arg	Ala Ser Leu	Val Gln Phe H130 Phe	Cys Gly H115 Phe Gly	lle 1100 Thr Asn	Met Gly Asp Leu	Gly Ser Glu Val	Thr Gln Arg H135 Ala	Val Ser 1120 Asp Ala
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile	1075 Gln Thr Val	Ser Leu Ala Ala	Ser His 11e 1125 Ala	Asp Arg 1110 Ser Ala	GIn 1095 Leu Thr Met	Val Gly Arg	Ala Ser Leu	Val Gln Phe H130 Phe	Cys Gly H115 Phe Gly	11e 1100 Thr Asn Asp	Met Gly Asp Leu	Gly Ser Glu Val	Thr Gln Arg H135 Ala	Val Ser 1120 Asp Ala
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile	1075 Gln Thr Val Arg Asp	Ser Leu Ala Ala 1140 Arg	Ser His 11c 1125 Ala Glu	Asp Arg 1110 Ser Ala	GIn 1095 Leu Thr Met	1080 Val Gly Arg Ala Gly	Ala Ser Leu 1145 Leu	Val Gln Phe 1130 Phe	Cys Gly H115 Phe Gly Thr	11e 1100 Thr Asn Asp	Met Gly Asp Leu Val	Gly Ser Glu Val His	Thr Gln Arg 1135 Ala Gln	Val Ser 1120 Asp Ala
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile	1075 Gln Thr Val Arg Asp 1155 Pro	Ser Leu Ala Ala 1140 Arg	Ser His 11c 1125 Ala Glu	Asp Arg 1110 Ser Ala Leu	GIn 1095 Leu Thr Met	1080 Val Gly Arg Ala Gly	Ala Ser Leu 1145 Leu	Val Gln Phe 1130 Phe	Cys Gly H115 Phe Gly Thr	11e 1100 Thr Asn Asp	Met Gly Asp Leu Val	Gly Ser Glu Val His	Thr Gln Arg 1135 Ala Gln	Val Ser 1120 Asp Ala
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile Met Ala	1075 Gln Thr Val Arg Asp 1155 Pro	Ser Leu Ala Ala 1140 Arg Leu	Ser His 11c 1125 Ala Glu Leu	Asp Arg H110 Ser Ala Leu Leu	GIn 1095 Leu Thr Met Ser His	Oly Arg Ala Gly 1160 Leu	Ala Ser Leu 1145 Leu Lys	Val Gln Phe I130 Phe Arg	Cys Gly H115 Phe Gly Thr	11e 1100 Thr Asn Asp Gln Cys	Met Gly Asp Leu Val 1165 Pro	Gly Ser Glu Val H150 His	Thr  Gln  Arg  1135  Ala  Gln  Val	Val Ser 1120 Asp Ala Ser
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile Met Ala Met Val 1170	1075 Gln Thr Val Arg Asp 1155 Pro	Ser Leu Ala Ala 1140 Arg Leu	Ser His 11c 1125 Ala Glu Leu	Asp Arg H110 Ser Ala Leu Leu	GIn 1095 Leu Thr Met Ser His	Oly Arg Ala Gly 1160 Leu	Ala Ser Leu 1145 Leu Lys	Val Gln Phe H30 Phe Arg Asp	Cys Gly H115 Phe Gly Thr	11e 1100 Thr Asn Asp Gln Cys	Met Gly Asp Leu Val 1165 Pro	Gly Ser Glu Val H150 His	Thr Gln Arg 1135 Ala Gln Val	Val Ser 1120 Asp Ala Ser
Phe Phe 1090 Ser Asp 1105 Leu Gly Gly Ile Met Ala Met Val 1170 Thr Gln	1075 Gln Thr Val Arg Asp 1155 Pro	Leu Ala Ala H40 Arg Leu Lys	Ser His 11e 1125 Ala Glu Leu Phe	Asp Arg H110 Ser Ala Leu Leu Thr	GIn 1095 Leu Thr Met Ser His 1175 Phe	Gly Arg Ala Gly 1160 Leu Tyr	Ala Ser Leu 1145 Leu Lys	Val Gln Phe H30 Phe Arg Asp Cys	Cys Gly H115 Phe Gly Thr Gln Ala H195	11e 1100 Thr Asn Asp Gln Cys 1180 Val	Met Gly Asp Leu Val 1165 Pro	Gly Ser Glu Val H150 His	Thr Gln Arg H35 Ala Gln Val	Val Ser 1120 Asp Ala Ser Ala Trp 1200

Ser Ala Arg His Phe Leu Trp Thr Cys Leu Met Thr Arg Ser Gln Glu 1225 Glu Phe Ser Ile His Leu Ser Gln Ala Leu Ser Tyr Leu His Ser His 1235 1240 1245 Ser Cys His Ile Lys Thr Trp Val Thr Leu Phe Ile Gly His Thr Ile 1260 1255 Cys Tyr His Pro Gln Ala Val Phe Gln Met Leu Asn Ala Val Asp Thr 1270 1275 1280 Asn Leu Leu Phe Arg Thr Phe Glu His Leu Arg Ser Asp Pro Glu Pro 1285 1290 Ser Ile Arg Glu Phe Ala Thr Ser Gln Leu Ser Phe Leu Gln Lys Val 1300 1305 1310 Ser Ala Arg Pro Lys Gln 1315

<210> 3753

<211> 240

<212> PRT

<213> Homo sapiens

<400> 3753

Met Pro Pro Ala Pro Ala Ser Pro Pro Leu Ser Leu Pro Gly Arg Asp
1 5 10 15

Gly Arg Arg Leu Cys Leu Pro Leu Pro Asp Leu Pro Cys Pro Gly Glu 20 25 30

Val Asp Thr Lys His Val Leu Gly Asn Leu Leu Pro Thr His Gly Ala 35 40 45

Val Gln Ala Ala Ala Ser Gln Pro Trp Ser Leu Leu Gly Val His Ser 50 55 60

Pro Ile Ala Thr Pro Ala Pro Leu Arg Gly Gln Ile Pro Ile Ser Leu 65 70 75 80

Ser Cys Leu Gln Asp Glu Tyr Arg Gly Pro Ser Ala Gly Gln Ser Gln 85 90 95

Glu Leu Trp Lys Cys Ser Leu Gln Arg Pro His Leu Asp Ala Pro Arg 100 105 110

Gly Cys Pro	Leu Ala	Glu Ser	Thr G	Gly Arg	Val Glu	Ala Ala	Ser Ala
115			120			125	
Met Ser Ala	Ala His	Val Pro	Gly A	Ala His	Pro Arg	Arg Arg	Leu Cys
130		135			140		
Leu Leu Ala	Ala Pro	Thr Asp	Phe L	.eu Ser	Phe Leu	Trp Ser	Ala Leu
145		150			155		160
Pro Pro Ser	Leu Pro	Pro Pro	Tyr P	Pro Gln	Arg His	Leu Leu	Thr Pro
	165			170			175
Ser Ser Met	Leu Cys	Pro Gly	Trp A	Asp Ala	Ser Trp	Ala Val	Pro Gly
	180		1	185		190	
Pro Arg Leu	Glu Pro	Leu Pro	Leu P	he Leu	Trp Val	Ser Pro	Cys Pro
195			200			205	
Ala Ala Gly	Asn Leu	Arg Val	Leu S	Ser Lys	Lys Ser	Cys Lys	Leu Ala
210		215			220		
Arg Pro Gly	Arg Ala	Glu Ala	Ser P	Phe Leu	Pro Asp	Gly Trp	Phe Ala
225		230			235		240

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3754

Met Trp Ser Leu Pro Gly Gly Leu Leu Ser Gly Leu Ala Thr His Pro 1 5 10 Trp Gln His Cys Pro Ile Ser Gly Leu Asp Phe Leu Arg Ser Cys Arg 25 Gly His Ser Leu Gln Pro Arg Arg Gly Ser Pro Leu Val Gln Pro Lys 35 45 Leu Ser Met Gly Leu Glu His Pro Cys Gln Pro Cys Ala Pro Ser Thr 55 Pro Arg Ser Arg Phe Ser Ser Val Ser Gln Gln Arg Gly Ser Val Leu 65 70 75 80 Pro Ser Leu Cys Val Ser Trp Ala Lys Thr Trp Gly Ala Leu Gly Gln 85 90 95

Gly Trp Cys Phe Pro Gln Ala His Leu Gly Arg Gly Leu Ala Pro Ser 100 105 110 Leu Ala Gln Val Leu Ser Ser Ala Leu Val Ala Leu Glu 115 120 125

<210> 3755

<211> 890

<212> PRT

<213> Homo sapiens

<400> 3755

Met Met Met Val Met Gln Pro Glu Gly Leu Gly Ala Gly Glu Gly Arg

1 5 10 15

Phe Ala Gly Gly Gly Gly Gly Glu Tyr Met Glu Gln Glu Glu Asp 20 25 30

Trp Asp Arg Asp Leu Leu Leu Asp Pro Ala Trp Cys Asn Ser His Leu 35 40 45

Arg Lys Ala Gly Thr Gln Ile Glu Asn Ile Glu Glu Asp Phe Arg Asn 50 55 60 .

Gly Leu Lys Leu Met Leu Leu Leu Glu Val IIe Ser Gly Glu Arg Leu
65 70 75 80

Pro Arg Pro Asp Lys Gly Lys Met Arg Phe His Lys Ile Ala Asn Val 85 90 95

Asn Lys Ala Leu Asp Phe Ile Ala Ser Lys Gly Val Lys Leu Val Ser 100 105 110

Ile Gly Ala Glu Glu Ile Val Asp Gly Asn Leu Lys Met Thr Leu Gly
115 120 125

Met 11e Trp Thr 11e 11e Leu Arg Phe Ala 11e Gln Asp 11e Ser Val 130 135 140

Glu Glu Thr Ser Ala Lys Glu Gly Leu Leu Leu Trp Cys Gln Arg Lys 145 150 155 160

Thr Ala Pro Tyr Arg Asn Val Asn Val Gln Asn Phe His Thr Ser Trp 165 170 175

Lys Asp Gly Leu Ala Leu Cys Ala Leu 11e His Arg His Arg Pro Asp 180 185 190

Leu	He	Asp	Tyr	Ala	Lys	Leu	Arg	Lys	Asp	Asp	Pro	He	Gly	Asn	Leu
		195					200					205			
Asn	Thr	Ala	Phe	Glu	Val	Ala	Glu	Lys	Tyr	Leu	Аѕр	He	Pro	Lys	Met
	210					215					220				
Leu	Asp	Ala	Glu	Asp	He	Val	Asn	Thr	Pro	Lys	Pro	Asp	Glu	Lys	Ala
225					230					235					240
He	Met	Thr	Tyr	Val	Ser	Cys	Phe	Tyr	His	Ala	Phe	Лlа	Gly	Ala	Glu
				245					250					255	
Gln	Ala	Glu	Thr	Ala	Ala	Asn	Arg	Ile	Cys	Lys	Val	Leu	Ala	Val	Asn
			260					265					270		
Gln	Glu	Asn	Glu	Lys	Leu	Met	Glu	Glu	Tyr	Glu	Lys	Leu	Ala	Ser	Glu
		275					280					285			
Leu	Leu	Glu	Trp	He	Arg	Arg	Thr	Val	Pro	Trp	Leu	Glu	Asn	Arg	Val
	290					295			•		300				
Gly	Glu	Pro	Ser	Met	Ser	Ala	Met	Gln	Arg	Lys	Leu	Glu	Asp	Phe	Arg
305					310					315					320
Asp	Tyr	Arg	Arg	Leu	His	Lys	Pro	Pro	Arg	lle	Gln	Glu	Lys	Cys	Gln
				325					330					335	
Leu	Glu	He	Asn	Phe	Asn	Thr	Leu	Gln	Thr	Lys	Leu	Arg	Leu	Ser	His
			340					345					350		
Arg	Pro	Ala	Phe	Met	Pro	Ser	Glu	Gly	Lys	Leu	Val	Ser	Asp	He	Ala
		355					360					365			
Asn		Trp	Arg	Gly	Leu	G] u	Gln	Val	Glu	Lys	Gly	Туг	Glu	Asp	Trp
	370					375					380				
Leu	Leu	Ser	Glu	He	Arg	Arg	Leu	Gln	Arg	Leu	Gln	His	Leu	Ala	Glu
385					390					395					400
Lys	Phe	Arg	Gln	Lys	Ala	Ser	Leu	His		Ala	Trp	Thr	Arg	Gly	Lys
				405					410					415	
Glu	Glu	Met		Ser	Gln	Arg	Asp		Asp	Ser	Ala	Leu	Leu	Gln	Glu
			420					425					430		
Val	Arg		Leu	Leu	Arg	Arg		Glu	Ala	Phe	Glu	Ser	Asp	Leu	Ala
		435					440					445			
Ala		Gln	Asp	Arg	Val		His	He	Ala	Ala	Leu	Ala	G1n	Glu	Leu
	450					455					460				
	Glu	Leu	Asp	Tyr		Glu	Ala	Ala	Ser	Val	Asn	Ser	Arg	Cys	
465					470					475					480

міа	lle	Cys	Asp	Gln 485	Trp	Asp	Asn	Leu	Gly 490	Thr	Leu	Thr	Gln	Lys 495	Arg
Arg	Asp	Ala	Leu		Arg	Met	Glu	Lvs		Leu	Glu	Thr	He		Gln
111 6	пор		500	014		, no c	014	505	Bea	Lou	014		510	м	0111
Leu	Gln	Leu	Glu	Phe	Ala	Arg	Arg		Ala	Pro	Phe	Asn		Trp	Leu
		515				0	520					525		,-	
Asp	Gly		Val	Glu	Asp	Leu		Asp	Val	Trp	Leu		His	Ser	Val
•	530				•	535		•		•	540				
Glu	Glu	Thr	Gln	Ser	Leu	Leu	Thr	Ala	His	Asp	Gln	Phe	Lys	Ala	Thr
545					550					555					560
Leu	Pro	Glu	Ala	Asp	Arg	Glu	Arg	G1 y	Ala	Ile	Met	Gly	lle	Gln	G1 y
				565					570					575	
Glu	He	Gln	Lys	He	Cys	Gln	Thr	Tyr	Gly	Leu	Arg	Pro	Cys	Ser	Thr
			580					585					590		
Asn	Pro	Tyr	He	Thr	Leu	Ser	Pro	Gln	Asp	lle	Asn	Thr	Lys	Trp	Asp
		595					600					605			
Met	Val	Arg	Lys	Leu	Val	Pro	Ser	Arg	Asp	Gln	Thr	Leu	Gln	Glu	Glu
	610					615					620				
Leu	Ala	Arg	Gln	Gln	Val	Asn	Glu	Arg	Leu	Arg	Arg	Gln	Phe	Ala	Ala
625					630					635					640
Gln	Ala	Asn	Ala	He	Gly	Pro	Trp	lle	Gln	Ala	Lys	Val	Glu	Glu	Val
				645					650					655	
G1y	Arg	Leu	Ala	Ala	Gly	Leu	Ala	Gly	Ser	Leu	Glu	Glu	Gln	Met	Ala
			660					665					670		
Gly	Leu		Gln	Gln	Glu	Gln		lle	He	Asn	Tyr		Thr	Asn	He
		675					680				0.1	685			
Asp		Leu	Glu	GIy	Asp		GIn	Leu	Leu	GIn		Ser	Leu	Val	Phe
Δ	690	,	11.2	TI	17 . 1	695	С.	<b>14</b> 4	C1	11.	700		V 1	C1	т
705	Ser	Lys	His	Inr		tyr	Ser	Met	G] u		11e	Arg	vai	GIY	
	Cln	Lou	Lou	Thr	710	110	A10	Ana	Thr	715	Acn	C1	Vo.1	<i>C</i> 1	720
Olu	0111	Leu	Leu	725	Sei	116	мта	MI B	730	116	ASII	Giu	vai	735	ASII
Gln	Val	Leu	Thr		Aen	Ala	Lve	Glv		Ser	Gln	Glu	Gln		Aen
0111	, 41	Lou	740	111 5	11:31	1110	د و د	745	LCU	Dea	<b>9111</b>	Q J U	750	1) ( (1	11:311
Glu	Phe	Arg	Ala	Ser	Phe	Asn	His		Asp	Arg	Lvs	Arg		G] v	Met
		755					760			0		765			

Met Glu Pro Asp Asp Phe Arg Ala Cys Leu Ile Ser Met Gly Tyr Asp Leu Gly Glu Val Glu Phe Ala Arg Ile Met Thr Met Val Asp Pro Asn Ala Ala Gly Val Val Thr Phe Gln Ala Phe Ile Asp Phe Met Thr Arg Glu Thr Ala Glu Thr Asp Thr Thr Glu Gln Val Val Ala Ser Phe Lys Ile Leu Ala Gly Asp Lys Asn Tyr Ile Thr Pro Glu Glu Leu Arg Arg Glu Leu Pro Ala Lys Gln Ala Glu Tyr Cys Ile Arg Arg Met Val Pro Tyr Lys Gly Ser Gly Ala Pro Ala Gly Ala Leu Asp Tyr Val Ala Phe Ser Ser Ala Leu Tyr Gly Glu Ser Asp Leu 

<210> 3756

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3756

Met Arg Cys Pro Pro Gly Ala Ser Leu Ala Ala Ala Arg Gln Asp Leu Pro Ala Trp Asp Tyr Ser Met Arg Gly Arg Ser Gly Trp Ser Trp Cys Gly Ser Leu Ser Gln Pro Phe Leu Cys Ile Gly Ala Leu Pro Arg Arg His Leu Ser Cys Lys Arg Gly Glu Cys Asp Val Asp Thr Trp Ala Pro Gly Leu Ala Cys Val lle Trp Ala Gly Pro His Lys His His Lys His Leu Phe His His Ala lle Asp Gly Cys Trp Ala Ala Gln Gly Cys Asp 

Val Glu Leu Gly Asn Pro Ala Trp Glu Gly Ser Ile Pro Gly Ala Ala Phe Gln Lys Lys Asn Ser Leu His Gln Glu Gly Val Ala Glu Pro Gln Ser Pro Arg Asn Leu Arg Glu Ala Pro Lys Gly Gly Leu Pro Glu Asp Thr His Pro Pro Tyr Leu Leu His Thr Gly Ser Ser Asn Gln Thr Val Trp Pro Lys Gln Pro Gly Tyr Phe His Leu Ser Gln Gln Pro Trp Ala Thr Leu Gly Met Val Pro Asn Met Ala Cys Ala Ala Val Thr Val Leu Arg Gly Leu Ala Ser Thr Gly Ser Phe Leu Leu Asp Gly Gly Thr Gly Ala Arg Ile Tyr Leu Leu Pro Tyr Ser Val Pro Ala Gln Pro Arg Ser Met Asp Pro Phe Thr Gly Cys Phe Ile Pro His Pro Pro Glu Leu Leu Gly Pro Leu Arg Cys Pro Gly Asp Gly Gly Ala Leu Cys Leu Cys Pro Val Ala Ala Ile Ala Ala Thr Thr Ser Thr Ser Ser Ala Gly Trp Pro Pro Gly Thr Ala Ser Pro Gly 

<210> 3757

<211> 255

<212> PRT

<213> Homo sapiens

<400> 3757

Met Met Ser Ile Phe Leu Met Gly Cys Tyr Asp Pro Gly Ser Gln Lys

1 5 10 15

Trp Cys Thr Val Thr Lys Cys Ala Gly Gly His Asp Asp Ala Thr Leu

			20					25					30		
Ala	Arg	Leu	Gln	Asn	Glu	Leu	Asp	Met	Val	Lys	Ile	Ser	Lys	Asp	Pro
		35					40					45			
Ser	Lys	He	Pro	Ser	Trp	Leu	Lys	Val	Asn	Lys	He	Tyr	Tyr	Pro	Asp
	50					55					60				
Phe	lle	Val	Pro	Asp	Pro	Lys	Lys	Ala	Ala	Val	Trp	Glu	Ile	Thr	Gly
65					70					75					80
Ala	Glu	Phe	Ser	Lys	Ser	Glu	Ala	His	Thr	Ala	Asp	Gly	Ile	Ser	lle
				85					90					95	
Arg	Phe	Pro	Arg	Cys	Thr	Arg	Ile	Arg	Asp	Asp	Lys	Asp	Trp	Lys	Ser
			100					105					110		
Ala	Thr	Asn	Leu	Pro	G1n	Leu	Lys	Glu	Leu	Tyr	Gln	Leu	Ser	Lys	Glu
		115					120					125			
Lys	Ala	Asp	Phe	Thr	Val	Val	Ala	Gly	Asp	Glu	Gly	Ser	Ser	Thr	Thr
	130					135					140				
Gly	Gly	Ser	Ser	Glu	Glu	Asn	Lys	Gly	Pro	Ser	Gly	Ser	Ala	Val	Ser
145					150					155					160
Arg	Lys	Ala	Pro		Lys	Pro	Ser	Ala	Ser	Thr	Lys	Lys	Ala	Glu	Gly
				165					170					175	
Lys	Leu	Ser	Asn	Ser	Asn	Ser	Lys	Asp	Gly	Asn	Met	Gln	Thr	Ala	Lys
			180					185					190		
Pro	Ser	Ala	Met	Lys	Val	Gly		Lys	Leu	Ala	Thr	Lys	Ser	Ser	Pro
		195					200					205			
Val		Val	Gly	Glu	Lys		Lys	Ala	Ala	Asp		Thr	Leu	Cys	Gln
	210					215					220				
	Lys	Val	Arg	Val		Thr	Ala	Thr	His		Val	Gly	Gln	Phe	
225 D	0.7	0	,, ,		230			_		235					240
Pro	Gly	Cys	Val		Asn	Leu	Leu	Tyr		Lys	Phe	Glu	Arg	-	
				245					250					255	

<211> 202

<212> PRT

<213> Homo sapiens

<400> 3758 Met Asn Val Pro Arg Ser Gln Pro Ala Ser Lys Glu Leu Leu Lys Gly 5 10 Glu Leu Ser Met Tyr Asn Asn Glu Arg Arg Phe Arg Ile Arg Ser Gln 30 20 25 Asp Ser Tyr Asn Pro Phe Ile Leu Leu Phe Phe Ser Arg Arg Ser Leu 40 45 Ser Leu Ser Pro Arg Leu Glu Cys Ser Gly Val Ile Leu Ala His Cys 50 55 60 Asn Leu His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Arg 70 75 Val Ala Gly Ile Thr Val Ala Arg His His Ala Trp Leu Ile Phe Val 90 Phe Leu Val Glu Thr Gly Phe His His Val Gly Gln Ala Gly Leu Glu 100 105 Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly 120 Ile Thr Gly Val Ser His His Thr Arg Phe Ile Leu Leu Phe Thr His 130 135 140 Ser Ser Phe Asn Lys His Thr Val Glu Ile His Ile Ser Val Ser Ala 150 155 Phe Asn His Arg Lys Ser Glu Leu Ser Thr Gln Leu Leu Met Cys Trp 165 170 lle His Glu Lys Cys Ser Val Cys Phe Asn Leu Leu Ala Leu Lys Tyr 190 180 185 Cys Met Gln Ser Val Gly Phe Asn Ser Leu

<210> 3759

<211> 108

<212> PRT

<213> Homo sapiens

195

<400> 3759

Met Ser Ala Ala Phe Pro Gly Ala Ser Leu Tyr Leu Pro Met Ala Gln

5 10 15 Ser Val Ala Val Gly Pro Leu Gly Ser Thr Ile Pro Met Ala Tyr Tyr 25 Pro Val Gly Pro IIe Tyr Pro Pro Gly Ser Thr Val Leu Val Glu Gly 35 40 45 Gly Tyr Asp Ala Gly Ala Arg Phe Gly Ala Gly Ala Thr Ala Gly Asn 55 Ile Pro Pro Pro Pro Pro Gly Cys Pro Pro Asn Ala Ala Gln Leu Ala 70 75 80 Val Met Gln Gly Ala Asn Val Leu Val Thr Gln Arg Lys Gly Asn Phe 85 90 Phe Met Gly Gly Ser Asp Gly Gly Tyr Thr Ile Trp 100 105

<210> 3760

<211> 377

<212> PRT

<213> Homo sapiens

<400> 3760

Met Gly His Lys Arg Glu Phe Arg Ala Pro Thr Leu Ala Ser Leu Glu

1 5 10 15

Asn Cys Met Lys Leu Ser Gln Met Ala Val Gln Gly Leu Gln Gln Phe

20 25 30

Lys Ser Pro Leu Leu Gln Leu Pro His Ile Glu Glu Asp Asn Leu Arg

35 40 45 Arg Val Ser Asn His Lys Lys Tyr Lys Ile Lys Thr Ile Gln Asp Leu

50 55 60

Val Ser Leu Lys Glu Ser Asp Arg His Thr Leu Leu His Phe Leu Glu
65 70 75 80

Asp Glu Lys Tyr Glu Glu Val Met Ala Val Leu Gly Ser Phe Pro Tyr 85 90 95

Val Thr Met Asp lle Lys Ser Gln Val Leu Asp Asp Glu Asp Ser Asn 100 105 110

Asn Ile Thr Val Gly Ser Leu Val Thr Val Leu Val Lys Leu Thr Arg

		115					120					125			
Gln	Thr	Met	Ala	Glu	Val	Phe	Glu	Lys	Glu	Gln	Ser	He	Cys	Ala	Ala
	130					135					140				
Glu	Glu	Gln	Pro	Ala	Glu	Asp	Gly	Gln	Gly	Glu	Thr	Asn	Lys	Asn	Arg
145					150					155					160
Thr	Lys	Gly	Gly	Trp	Gln	G]n	Lys	Ser	Lys	Gly	Pro	Lys	Lys	Thr	Ala
				165					170					175	
Lys	Ser	Lys	Lys	Lys	Lys	Pro	Leu	Lys	Lys	Lys	Pro	Thr	Pro	Val	Leu
			180					185					190		
Leu	Pro	Gln	Ser	Lys	Gln	Gln	Lys	Gln	Lys	Gln	Ala	Asn	Gly	Val	Val
		195					200					205			
Gly	Asn	Glu	Ala	Ala	Val	Lys	Glu	Asp	Glu	Glu	Glu	Val	Ser	Asp	Lys
	210					215					220				
Gly	Ser	Asp	Ser	Glu	Glu	Glu	Glu	Leu	Gln	Gln	Ser	He	Gln	Arg	Lys
225			•		230					235					240
Glu	Arg	Ala	Leu	Leu	Glu	Thr	Lys	Ser	Lys	He	Thr	His	Pro	Val	Tyr
				245					250					255	
Ser	Leu	Tyr	Phe	Pro	Glu	Glu	Lys	Gln	Glu	Trp	Trp	Trp	Leu	Tyr	He
			260					265					270		
Ala	Asp		Lys	Glu	Gln	Thr		He	Ser	Met	Pro		His	Val	Cys
m.		275		mı	0.1	0.1	280	0.1		,	101	285		Б	0.1
Thr		Lys	Asp	Thr	Glu		Val	Glu	Leu	Lys		Pro	Ala	Pro	Gly
	290	0.1		Tr.	61	295 T	Tr)	37 3	151	,	300	c		6	ar.
	Pro	Gly	Asn	lyr		lyr	Ihr	Val	Phe		Arg	Ser	Asp	Ser	
305	C1 .	1	Α	C1.	310	1	D.	<b>.</b>	1	315	C1	V . 3	и	C1	320
меι	GIY	Leu	Asp		11e	Lys	Pro	Leu		Leu	61u	vai	His		Ата
1	Desa	Val	Dava	325	A	Hi a	Dura	C1-	330	1 0 0	Tlass	<b>A1</b> a	T1 a	335	C1
Lys	PTO	vai	340	Glu	ASII	ms	Pro		пр	ASP	HIL	мта	11e 350	Gru	GTY
A cp	Clu	Acn		Clu	Acn	Sor	C1n	345	Dho	Clu	Acn	Sor		61	Clu
ush	oru	355	9111	0.10	ush	261	360	G1 y	me	010	veh	365	Phe	GIU	GIU
Glo	Glu		Glu	Glo	Glu	Aen		Aen				500			
u	370	O1 a	Olu	Old	GIG	375	пор	пор							

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<210> 3761
<211> 156
<212> PRT
<213> Homo sapiens
<400> 3761
Met Val His Gly Thr Ala Ala Val Ala Leu Tyr Leu Asp Pro Leu Phe
                  5
                                     10
Phe Leu Arg Arg Ser Phe Ala Leu Leu Pro Arg Leu Glu Cys Ser Gly
             20
                                 25
                                                      30
Ala Ile Leu Ala His Cys Lys Leu Arg Leu Gln Gly Ser Cys His Ser
                             40
                                                  45
Pro Ala Ser Gly Leu His Leu Ser Gly Ser Ser Asp Ser Pro Ala Ser
     50
                         55
                                             60
Ala Ser Ala Ser Trp Val Gln Ala Asn Leu Arg Leu Leu Asp Pro Ser
                     70
                                          75
Asp Ser Pro Ala Ser Ala Ser Gln Leu Ala Gly Thr Thr Gly Val Arg
                                     90
Asn His Ala Gln Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe His
            100
                                105
                                                     110
His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu Arg
                            120
Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Arg His Arg Ala
    130
                        135
                                             140
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145

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3762

Met Ser Ser Thr Trp Gln Val Gly Cys Leu Phe Pro Asp Ile Ser Ser

1 5 10 15

155

Arg Pro Ser Val Ser Phe Lys Gln Gly Ser Gly Glu

Leu Phe Gln Ser Arg Arg Gly Arg Thr Lys Gly 11e Pro Thr Leu Gly 25 Gln Leu His Phe Thr Ala Phe Leu Lys Thr Leu Pro Arg Glu Leu Cys 40 45 Phe lle Ser Leu Ala Gly Thr Val Ser His Gly Gln Pro Trp Leu Gln 55 Arg Arg Leu Gly Val Leu Leu Leu Phe Phe Lys Met Val Ser Cys Ser 70 75 Val Val Gln Phe Gly Val Gln Trp Arg Asp Leu Gly Ser Leu Gln Pro 85 90 Pro Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Ser Ser Ser 105 Trp Asp Tyr Arg Pro Thr Pro Pro His Pro Ala Asn Phe Cys Ile Phe 115 120 125 Ser Arg Asp Gly Val Leu Pro Cys Trp Pro Ser Trp Ser Gln Thr Ala 130 135 140 Asp Leu Arg 145 <210> 3763 <211> 367 <212> PRT <213> Homo sapiens <400> 3763 Met Cys Gly Asp Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp 10 Val Gly Val Ala Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg 30 20 25 Arg Arg Arg Pro Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly 11e Arg 40 Ala Thr Ser Arg Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu 50 55 Glu Gln Pro Thr Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp

70

65

75

Leu	Glu	Asp	Glu	Ser 85	Thr	Pro	lle	Val	Lys 90	Leu	Gly	Asp	Ala	Ser 95	Ile
Ala	Ala	Pro	Phe		Ser	Lys	Leu	Ser		He	Gln	Cvs	Tle		His
ma	nia.	.10	100		501	15,5	Loa	105	Dei	110	01	C) C	110	0,0	
Val	He	Lvs		Glv	Arg	Cys	Thr		Val	Thr	Thr	Leu		Met	Phe
		115	~		, 0	-,-	120					125			
Lys	lle		Ala	Leu	Asn	Ala		He	Leu	Ala	Tyr	Ser	Gln	Ser	Val
•	130					135					140				
Leu	Tyr	Leu	Glu	Gly	Val	Lys	Phe	Ser	Asp	Phe	Gln	Ala	Thr	Leu	Gln
145					150					155					160
Gly	Leu	Leu	Leu	Ala	Gly	Cys	Phe	Leu	Phe	Ile	Ser	Arg	Ser	Lys	Pro
				165					170					175	
Leu	Lys	Thr	Leu	Ser	Arg	Glu	Arg	Pro	Leu	Pro	Asn	lle	Phe	Asn	Leu
			180					185					190		
Tyr	Thr	He	Leu	Thr	Val	Met	Leu	Gln	Phe	Phe	Val	His	Phe	Leu	Ser
		195					200					205			
Leu	Val	Tyr	Leu	Tyr	Arg	Glu	Ala	Gln	Ala	Arg	Ser	Pro	Glu	Lys	Gln
	210					215					220				
Glu	Gln	Phe	Val	Asp	Leu	Tyr	Lys	Glu	Phe	Glu	Pro	Ser	Leu	Val	Asn
225					230					235					240
Ser	Thr	Val	Tyr	lle	Met	Ala	Met	Ala	Met	Gln	Met	Ala	Thr		Ala
				245					250					255	
He	Asn	Tyr		Val	Arg	Pro	Gly		Cys	Pro	Asn	He		Cys	Leu
			260					265	_				270		
Pro	Thr		Pro	His	Pro	Met		Pro	Ser	Val	Pro		Pro	His	Arg
. 1		275	C	т		4.1	280	15		TI	C	285	т.	C	C1
Ala		Pro	Ser	Trp	Arg	Ala	Cys	Pro	Arg	Inr		Pro	Trp	Cys	СТУ
Vol.	290 Two	Cla	Dho	Uic	Sor	295 Trp	Dro	Sor	Lou	Ala	300 Cvs	Sor	Sor	Ala	Pro
305	пр	GIII	rne	1115	310	11 þ	110	361	Leu	315	Cys	261	261	піа	320
	Pro	Thr	Ser	Thr		Ser	Leu	Ala	Ser		Thr	Ser	Len	Trp	
.11 g	110	1111	561	325	433.61	001	Ecu	, , <u>,</u> , u	330	1.4	1111	501	204	335	501
Ser	Ser	Tro	Ser		Pro	Arg	Ser	Cvs		Trp	Thr	Ser	Ala		Arg
		12	340		*	.,,	-	345					350	•	J
Ser	Trp	Pro	Thr	Ala	Ser	Cys	Ser	Ser	Ser	Trp	Gly	Pro	Arg	Ser	
		355					360					365			

<211> 109 <212> PRT <213> Homo sapiens <400> 3764 Met Asn Arg Val Cys Pro Thr Cys Trp Arg Cys Ala Leu Pro Pro Ala 5 10 Ala Pro Gly Arg His Ser His Pro Phe Ser Asp Glu Glu Val Asp Val 25 Trp Arg Gln Arg Val His Ala Glu Ser Leu Leu Gln Thr Arg Leu Lys 35 40 45 Gly Gly Pro Gln Pro Leu Ser Gln Asn Val Ser Ser Val Ala Gly Ser 55 60 Ala Pro Glu Glu Gln Lys Gln Trp Pro Gly Val Cys Phe Gln Leu Cys 70 Ser Phe Leu Glu Ala Ser Gly Gly Cys Asp Gln Lys Ala Ala Leu Thr 85 90 95 Gly Gly Ser Thr Gln His Leu Gln Arg Pro Lys Ser Ser 100 105 <210> 3765 <211> 274 <212> PRT <213> Homo sapiens <400> 3765 Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr Ser Gly 10 Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala Asp Leu 25 Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu Val Ala

40

45

<210> 3764

Asp	Glu	Leu	Leu	Glu	Asn	Leu	Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro
	50					55					60				
Asn	Ser	Pro	Glu	Arg	Val	Thr	Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser
65					70					75					80
Ser	Gly	Gly	Ser	Gly	Lys	Leu	G1 y	His	Pro	Arg	Leu	His	Gln	Leu	Leu
				85					90					95	
Ala	Leu	Thr	Leu	Trp	Lys	Glu	Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His
			100					105					110		
Phe	Leu	His	Ser	Ala	Asp	Gly	Glu	Gly	Cys	Ala	Asn	Met	Leu	Val	Glu
		115					120					125			
Tyr	Ser	Thr	Ser	Arg	Gly	Phe	Arg	Ser	Glu	Val	Asp	Met	Phe	Val	Ala
	130					135					140	•			
Gln	Ala	Val	Leu	Gln	Phe	Leu	Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser
145					150					155					160
Val	Val	Phe	Thr	Thr	Tyr	Thr	Gln	Lys	His	Pro	Ser	lle	Glu	Asp	G1 y
				165					170					175	
Pro	Pro	Phe	Val	Glu	Pro	Leu	Leu	Asn	Phe	He	Trp	Phe	Leu	Leu	Leu
			180					185					190		
Ala	Val	Asp	Gly	Gly	Lys	Leu	Thr	Val	Phe	Thr	Val	Leu	Cys	Glu	G1n
		195					200					205			
Tyr	Gln	Pro	Ser	Leu	Arg	Arg	Asp	Pro	Met	Tyr	Asn	Glu	Tyr	Leu	Asp
	210					215					220				
Arg	He	Gly	Gln	Leu	Phe	Phe	Gly	Val	Pro	Pro	Lys	Gln	Thr	Ser	Ser
225					230					235					240
Tyr	Gly	Gly	Leu	Leu	Gly	Asn	Leu	Leu	Thr	Ser	Leu	Met	Gly	Ser	Ser
				245					250					255	
Glu	Gln	Glu	Asp	Gly	Glu	Glu	Ser	Pro	Ser	Asp	Gly	Ser	Pro	He	Glu
			260					265					270		
Leu	Asp														

<211> 798

<212> PRT

## <213> Homo sapiens

<400	)> 37	766													
Met	Ile	Val	Ala	Leu	Arg	Glu	Ala	Leu	Thr	Ser	Thr	Asn	Pro	Lys	Ala
1				5					10					15	
Ala	Leu	Lys	Ser	Lys	He	Val	Ala	Glu	Phe	Arg	Ser	Gln	Ala	Leu	11e
			20					25					30		
Glu	Glu	Leu	Leu	Leu	Tyr	Lys	Arg	Ser	Glu	Asp	Gln	Ile	Glu	Leu	Lys
		35					40					45			
Glu	Lys	Gln	Leu	Ser	Thr	Met	Arg	Val	Asp	Val	Cys	Ser	Thr	Glu	Thr
	50					55					60				
Leu	Lys	Cys	Leu	Lys	Asp	Lys	Thr	Gly	G1 y	Lys	Lys	Phe	Ser	Lys	Glu
65					70					75					80
Phe	Glu	Glu	Ala		Ser	Lys	Leu	Glu		Phe	Val	Asn	Gly		Asp
				85			_		90					95	
Lys	Gln	Val		Asn	Gly	Pro	Ser		Thr	Glu	Ala	Leu		Asn	Ala
	T.3	DI	100	0.1		0.1	Tr.	105	0.1	17 1		v. 1	110	. 1	
Gly	He		lyr	Glu	Ala	Gln		Lys	Glu	Val	Lys		Val	Ala	Asn
A 7	т.	115	TI -	DI .	41.	Λ	120	V - 3	Λ	۸	t	125	1	1	1
AŢa		Lys	ınr	Pne	Ата	Asn	Arg	vai	Asn	ASN	140	Lys	Lys	Lys	Leu
Aan	130	Lou	Lva	Sor	The	135	Dro	Aan	Dro	Clu		Son	Pro	Vol	Dro
145	GIII	Leu	Lys	Sei	150	Leu	110	лѕр	110	155	Olu	361	130	val	160
	Pro	Sor	Mat	Acn		Pro	Sar	Pro	Thr		Ser	Glu	Ser	Pro	
561	110	261	Met	165	MIG	110	561	110	170	Oly	501	Olu	561	175	1110
Gln	Glv	Met	Glv		Glu	Glu	Ser	Gln		Pro	Thr	Val	Glu		Glu
0111	01)	Mee	180	0.1	Old	0	003	185	501				190		
Lys	Ser	Ala		Pro	Glu	Pro	Val		Asp	Asn	Arg	Asp		G1u	Asp
·		195					200		•			205			
Met	Glu	Leu	Ser	Asp	Va]	Glu	Asp	Asp	Gly	Ser	Lys	He	He	Val	Glu
	210					215					220			•	
Asp	Arg	Lys	Glu	Lys	Pro	Ala	Glu	Lys	Ser	Ala	Va]	Ser	Thr	Ser	Va]
225					230					235					240
Pro	Thr	Lys	Pro	Thr	Glu	Asn	He	Ser	Lys	Ala	Ser	Ser	Cys	Thr	Pro
				245					250					255	

Val	Pro	Val		Met	Thr	Ala	Thr		Pro	Leu	Pro	Lys		Val	Asn
			260					265					270		
Thr	Ser	Leu	Ser	Pro	Ser	Pro	Ala	Leu	Ala	Leu	Pro	Asn	Leu	Ala	Asn
		275					280					285			
Val	Asp	Leu	Ala	Lys	Пе	Ser	Ser	He	Leu	Ser	Ser	Leu	Thr	Ser	Val
	290					295					300				
Met	Lys	Asn	Thr	Gly	Val	Ser	Pro	Ala	Ser	Arg	Pro	Ser	Pro	Gly	Thr
305					310					315					320
Pro	Thr	Ser	Pro	Ser	Asn	Leu	Thr	Ser	Gly	Leu	Lys	Thr	Pro	Ala	Pro
				325					330					335	
Ala	Thr	Thr	Thr	Ser	His	Asn	Pro	Leu	Ala	Asn	He	Leu	Ser	Lys	Val
			340					345					350		
Glu	He	Thr	Pro	Glu	Ser	He	Leu	Ser	Ala	Leu	Ser	Lys	Thr	Gln	Thr
		355					360					365			
Gln	Ser	Ala	Pro	Ala	Leu	Gln	Gly	Leu	Ser	Ser	Leu	Leu	Gln	Ser	Val
	370					375					380				
Thr	Gly	Asn	Pro	Val	Pro	Ala	Ser	Glu	Ala	Ala	Ser	Gln	Ser	Thr	Ser
385					390					395					400
Ala	Ser	Pro	Ala	Asn	Thr	Thr	Val	Ser	Thr	lle	Lys	Gly	Arg	Asn	Leu
				405					410			•		415	
Pro	Ser	Ser	Ala	Gln	Pro	Phe	He	Pro	Lys	Ser	Phe	Asn	Tyr	Ser	Pro
			420					425					430		
Asn	Ser	Ser	Thr	Ser	Glu	Val	Ser	Ser	Thr	Ser	Ala	Ser	Lys	Ala	Ser
		435					440					445			
He	Gly	Gln	Ser	Pro	Gly	Leu	Pro	Ser	Thr	Thr	Phe	Lys	Leu	Pro	Ser
	450					455					460				
Asn	Ser	Leu	Gly	Phe	Thr	Ala	Thr	His	Asn	Thr	Ser	Pro	Ala	Ala	Pro
465					470					475					480
Pro	Thr	Glu	Val	Thr	He	Cys	Gln	Ser	Ser	Glu	Val	Ser	Lys	Pro	Lys
				485					490					495	
Leu	Glu	Ser	Glu	Ser	Thr	Ser	Pro	Ser	Leu	Glu	Met	Lys	He	His	Asn
			500					505					510		
Phe	Leu	Lys	Gly	Asn	Pro	Gly	Phe	Ser	G1 y	Leu	Asn	Leu	Asn	He	Pro
		515					520					525			
lle	Leu	Ser	Ser	Leu	Gly	Ser	Ser	Ala	Pro	Ser	Glu	Ser	His	Pro	Ser
	530					535					540				

Asp	Phe	Gln	Arg	Gly	Pro	Thr	Ser	Thr	Ser	Пе	Asp	Asn	He	Asp	Gly
545					550					555					560
Thr	Pro	Val	Arg	Asp	Glu	Arg	Ser	Gly	Thr	Pro	Thr	Gln	Asp	Glu	Met
				565					570					575	
Met	Asp	Lys	Pro	Thr	Ser	Ser	Ser	Val	Asp	Thr	Met	Ser	Leu	Leu	Ser
			580					585					590		
Lys	He	lle	Ser	Pro	Gly	Ser	Ser	Thr	Pro	Ser	Ser	Thr	Arg	Ser	Pro
		595					600					605			
Pro	Pro	Gly	Arg	Asp	Glu	Ser	Tyr	Pro	Arg	Glu	Leu	Ser	Asn	Ser	Val
	610					615					620				
Ser	Thr	Tyr	Arg	Pro	Phe	Gly	Leu	Gly	Ser	Glu	Ser	Pro	Tyr	Lys	Gln
625					630					635					640
Pro	Ser	Asp	Gly	Met	Glu	Arg	Pro	Ser	Ser	Leu	Met	Asp	Ser	Ser	Gln
				645					650					655	
Glu	Lys	Phe	Tyr	Pro	Asp	Thr	Ser	Phe	Gln	Glu	Asp	Glu	Asp	Tyr	Arg
			660					665					670		
Asp	Phe	Glu	Tyr	Ser	Gly	Pro	Pro	Pro	Ser	Ala	Met	Met	Asn	Leu	Glu
		675					680					685			
Lys	Lys	Pro	Ala	Lys	Ser	Ile	Leu	Lys	Ser	Ser	Lys	Leu	Ser	Asp	Thr
	690					695					700				
Thr	Glu	Tyr	Gln	Pro	He	Leu	Ser	Ser	Tyr	Ser	His	Arg	Ala	Gln	Glu
705					710					715					720
Phe	Gly	Val	Lys	Pro	Ala	Phe	Pro	Pro	Ser	Val	Arg	Ala	Leu	Leu	Asp
				725					730					735	
Ser	Ser	Glu	Asn	Cys	Asp	Arg	Leu	Ser	Ser	Ser	Pro	Gly	Leu	Phe	Gly
			740					745					750		
Ala	Phe	Ser	Val	Arg	Gly	Asn	Glu	Pro	Gly	Ser	Asp	Arg	Ser	Pro	Ser
		755					760					765			
Pro	Lys	His	Pro	Cys	Arg	Ser	His	Gly	Ser	Pro	Thr	His	Val	Arg	Arg
	770					775					780				
Gly	Glu	Ser	Pro	Gly	Leu	His	His	Phe	His	His	Val	Asp	Asp		
785					790					795					

⟨211⟩ 314

<212> PRT <213> Homo sapiens

<400	)> 37	767													
Met	Λla	Ala	Thr	Asn	Leu	Glu	Asn	Gln	Leu	His	Ser	Ala	Gln	Lys	Asn
1				5					10					15	
Leu	Leu	Phe	Leu	Gln	Arg	Glu	His	Ala	Ser	Thr	Leu	Lys	Gly	Leu	His
			20					25					30		
Ser	Glu	Ile	Arg	Arg	Leu	Gln	Gln	His	Cys	Thr	Asp	Leu	Thr	Tyr	Glu
		35					40					45			
Leu	Thr	Val	Lys	Ser	Ser	Glu	Gln	Thr	Gly	Asp	Gly	Thr	Ser	Lys	Ser
	50					55					60				
Ser	Glu	Leu	Lys	Lys	Arg	Cys	Glu	Glu	Leu	Glu	Ala	Gln	Leu	Lys	Val
65					70					75					80
Lys	Glu	Asn	Glu	Asn	Ala	Glu	Leu	Leu	Lys	Glu	Leu	Glu	Gln	Lys	Asr
				85					90					95	
Ala	Met	Ile	Thr	Val	Leu	Glu	Asn	Thr	Ile	Lys	Glu	Arg	Glu	Lys	Lys
			100					105					110		
Tyr	Leu	Glu	Glu	Leu	Lys	Ala	Lys	Ser	His	Lys	Leu	Thr	Leu	Leu	Ser
		115					120					125			
Ser	Glu	Leu	Glu	Gln	Arg	Ala	Ser	Thr	He	Ala	Tyr	Leu	Thr	Ser	Glr
	130					135					140				
Leu	His	Ala	Ala	Lys	Lys	Lys	Leu	Met	Ser	Ser	Ser	Gly	Thr	Ser	Asp
145					150					155					160
Ala	Ser	Pro	Ser	Gly	Ser	Pro	Val	Leu	Ala	Ser	Tyr	Lys	Pro	Ala	Pro
				165					170					175	
Pro	Lys	Asp	Lys	Leu	Pro	Glu	Thr	Pro	Arg	Arg	Arg	Met	Lys	Lys	Ser
			180					185					190		
Leu	Ser	Ala	Pro	Leu	His	Pro	Glu	Phe	Glu	Glu	Val	Tyr	Arg	Phe	Gly
		195					200					205			
Ala	Glu	Ser	Arg	Lys	Leu	Leu	Leu	Arg	Glu	Pro	Val	Asp	Ala	Met	Pro
	210					215					220				
Asp	Pro	Thr	Pro	Phe	Leu	Leu	Ala	Arg	Glu	Ser	Ala	Glu	Val	His	Leu
225					230					235					240
He	Lys	Glu	Arg	Pro	Leu	Val	11e	Pro	Pro	He	Ala	Ser	Asp	Arg	Sei

Gly Glu Gln His Ser Pro Ala Arg Glu Lys Pro His Lys Ala His Val
260 265 270

Gly Val Ala His Arg Ile His His Ala Thr Pro Pro Gln Ala Gln Pro
275 280 285

Glu Val Lys Thr Leu Ala Val Asp Gln Val Asn Gly Gly Lys Val Val
290 295 300

Arg Lys His Ser Gly Thr Asp Arg Thr Val

<210> 3768

<211> 274

<212> PRT

<213> Homo sapiens

<400> 3768

Met Thr Arg Ala Val Asn Leu Ser Cys Glu Thr Thr Glu Gly Glu Thr
1 5 10 15

Thr Phe Ser Lys Asn Arg Ala Gln Thr Val Pro Val Ser Leu Ser Pro 20 25 30

Asn Cys Ser Met Ala Trp Ser Ala Ala Asn Val Ser Ala Ala Leu Lys 35 40 45

Gly Lys Ala Leu Leu Trp Ser Gln His Ala Glu Leu Ala Ser Thr Pro 50 55 60

Leu Arg Ala Ala Pro His Gln His Trp Leu Gly Leu Asn Leu Ser Ser
65 70 75 80

Leu Ala Pro Arg Cys Lys Pro Trp Asn Ala Asn Pro Lys Gly Gln Thr
85 90 95

Pro Arg Gly Ser Gln Val Pro Gly Ala Asp Thr Phe Leu Ala Leu Ala 100 105 110

Val Met Ala Gln Met Glu Ala Lys Thr Thr Pro Leu Ser Thr Gly Arg 115 120 125

Leu Val Leu Leu Pro Arg Glu Gln Glu Pro Arg His Arg Leu Cys Thr 130 135 140

Glu Phe Ser lle Tyr Phe Ser Gln Gly Gly Tyr Ala Lys Ala Val Cys 145 150 155 160 Leu Ser Leu Ser Gly Ser His Leu Gln Pro Val Pro Val Asp Ser Val 165 170 Gly Ser Thr Val Met Leu Gly Lys Asp Pro Asn Thr Arg Thr Lys His 180 Val Asp Ser Cys Gln Cys Gln Asn Gly Arg Lys Gln Gly Lys Gly Ser 200 205 Trp Leu Arg Pro Phe Ala Asn Arg Val Gln Arg Cys Arg His Leu Glu 215 220 Pro Ala Arg Ser Tyr Gln Thr Gly Ser His Leu Cys Leu Gln Arg Leu 225 230 235 240 Leu Ser Gln Arg Gln Asp Arg Gly Ala Trp Leu Cys Gln Val Ser Phe 250 245 Trp Asp Glu Pro Ile Leu Leu Ser Gln Val Gly His Asp Gly Glu Ala 260 265 270 Arg Arg

<210> 3769

<211> 121

<212> PRT

<213> Homo sapiens

<400> 3769

Met Arg Asn His Phe Lys Phe Leu Ser Lys Lys Asp Lys Met Ala Ala Ala Arg Arg Arg Ala Trp Arg Glu Gly Glu Arg Ala Ala Gly Ser Leu 25 Thr Arg Gly Leu Gln Leu Glu Pro Trp His Trp Gln Gly Ala Trp Arg 35 40 45 Arg Lys Arg Arg Lys Thr Val Ser Arg Gln Asp His Pro Asn Arg Ser 55 Ser Lys Leu Pro Trp Thr Ser Leu Pro Cys Pro His Arg Glu Ala Ala 65 70 75 Gly Asp Arg Ala Tyr Leu Gly Asn Thr Asn His Gly Ser Asp Thr Ser 85 90 95

Glu Met Ser Cys Arg Ala Ser Ala Ser Thr Leu Ile Gln Thr Leu Ser 100 105 110

Phe Ser Glu Leu Leu Gln Ala Pro Gly 120

<210> 3770

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3770

Met Gly Gln Val Trp Asn Leu Gly Ala Cys Gln Lys Gly Glu Arg Leu 1 5 10 15

Cys Gly Gln Thr His Leu Ala Cys Asn Pro Pro Leu Asn Ala Met His 20 25 30

Val Thr Leu Gly Ala Ser Leu Asn Phe Cys Gly His Gln Cys Pro His
35 40 45

Leu Gln Lys Cys Lys Trp Gln His Leu Phe Arg Ile Phe Leu Ile Arg 50 55 60

Ile Asp Glu Ile Leu Leu Lys Ile Ser Ser Thr Trp Gly Ala Pro Arg
65 70 75 80

Lys Ala Ser Ser Tyr His Phe Phe Asn Ala Ser Ser Ser Trp Val Ser

85 90 95

Lys Thr Ser Ile Ser Gln Pro Phe Pro Cys Leu Gln Asn Thr Gln Asn 100 105 110

Met Ala Leu Phe Val Trp His Arg Gly Met Trp Arg Gln Glu Val Ser 115 120 125

Gly Gly Tyr Val Gly Cys Arg Cys Pro Ser Ser Cys Ser Leu Gly Ala 130 135 140

lle Pro Gly

145

<210> 3771

<212> PRT <213> Homo sapiens <400> 3771 Met Cys Val Cys Met Ser Leu Thr Ser Ile Ser Gly Arg Val Thr Lys Asn Leu Ser Ile His Pro Arg Gln Gln Gly Cys Phe Ile Leu Arg Ala 20 25 30 Arg Leu Gly Phe Glu Gly Asp Phe Ile Arg Met Glu Ser Leu Trp Leu 40 45 Thr Asn Asn Cys Leu Leu Lys Tyr Gln Ala Leu Leu Leu Lys Gly Ser 55 Ala Val Gln Leu Lys Thr Cys Pro Cys Leu Ser Pro Ala Thr Phe Ser 75 65 70 Gln Arg Lys Leu Glu Asn Leu Asn Met Ile Val Asn Arg Met Ala Ser 90 Gly Gly Leu Gly Leu Leu Gly Glu Thr Glu Asn Ala Pro Gln Ile Pro 100 105 110 Phe <210> .3772 <211> 850 <212> PRT <213> Homo sapiens <400> 3772 Met Ile Ala Asn Ile Ser Pro Ser His Val Ala Thr Glu His Thr Leu Asn Thr Leu Arg Tyr Ala Asp Arg Val Lys Glu Leu Lys Lys Gly Ile 25 Lys Cys Cys Thr Ser Val Thr Ser Arg Asn Arg Thr Ser Gly Asn Ser

40

Ser Pro Lys Arg 11e Gln Ser Ser Pro Gly Ala Leu Ser Glu Asp Lys

45

<211> 113

	50					55					60				
Cys	Ser	Pro	Lys	Lys	Val	Lys	Leu	Gly	Phe	Gln	Gln	Ser	Leu	Thr	Val
65					70					75					80
Ala	Ala	Pro	Gly	Ser	Thr	Arg	Gly	Lys	Val	His	Pro	Leu	Thr	Ser	His
				85					90					95	
Pro	Pro	Asn	He	Pro	Phe	Thr	Ser	Ala	Pro	Lys	Val	Ser	Gly	Lys	Arg
			100					105					110		
Gly	Gly	Ser	Arg	Gly	Ser	Pro	Ser	Gln	Glu	Trp	Val	He	His	Ala	Ser
		115					120					125			
Pro	Val	Lys	G1 y	Thr	Val	Arg	Ser	Gly	His	Val	Ala	Lys	Lys	Lys	Pro
	130					135					140				
Glu	Glu	Ser	Ala	Pro	Leu	Cys	Ser	Glu	Lys	Asn	Arg	Met	Gly	Asn	Lys
145					150					155					160
Thr	Val	Leu	Gly	Trp	Glu	Ser	Arg	Ala	Ser	Gly	Pro	Gly	Glu	Gly	Leu
				165					170					175	
Val	Arg	<b>61</b> y	Lys	Leu	Ser	Thr	Lys	Cys	Lys	Lys	Val	Gln	Thr	Val	Gln
			180					185					190		
Pro	Val	Gln	Lys	Gln	Leu	Val	Ser	Arg	Val	Glu	Leu	Ser	Phe	Gly	Asn
		195					200					205			
Ala	His	His	Arg	Ala	Glu	Tyr	Ser	Gln	Asp	Ser	Gln	Arg	Gly	Thr	Pro
	210					215					220				
Ala	Arg	Pro	Ala	Ser	Glu	Ala	Trp	Thr	Asn	He	Pro	Pro	His	Gln	Lys
225					230					235					240
Glu	Arg	Glu	Glu	His	Leu	Arg	Phe	Tyr	His	Gln	G1n	Phe	Gln	G1n	Pro
				245					250					255	
Pro	Leu	Leu	Gln	Gln	Lys	Leu	Lys	Tyr	Gln	Pro	Leu	Lys	Arg	Ser	Leu
			260					265					270		
Arg	Gln	Tyr	Arg	Pro	Pro	Glu	Gly	Gln	Leu	Thr	Asn		Thr	Pro	Pro
		275					280					285			
Leu	Phe	His	Ser	Tyr	Ser		Asn	His	Asp	61 y		Gln	Val	Glu	Glu
	290					295					300				
Leu	Asp	Asp	Ser	Asp		Ser	Glu	Asp	Ser		Ser	His	lle	Phe	
305					310					315					320
Gln	Arg	Ala	Thr		Gln	Arg	Asn	Thr		Glu	Asn	Ser	Glu	Asp	Ser
n.	ь.			325				0.5	330		0.7	,	a •	335	
Phe	Phe	Leu	His	GIn	Thr	Trp	GIy	GIn	G] y	Pro	Glu	Lys	GIn	Val	Ala

			340				•	345					350		
Glu	Arg	Gln	Gln	Ser	Leu	Phe	Ser	Ser	Pro	Arg	Thr	G1 y	Asp	Lys	Lys
		355					360					365			
Asp	Leu	Thr	Lys	Ser	Trp	Val	Asp	Ser	Arg	Asp	Pro	Пe	Asn	llis	Arg
	370					375					380	•			
Arg	Ala	Ala	Leu	Asp	His	Ser	Cys	Ser	Pro	Ser	Lys	Gly	Pro	Val	Asp
385					390					395					400
Trp	Ser	Arg	Glu	Asn	Ser	Thr	Ser	Ser	Gly	Pro	Ser	Pro	Arg	Asp	Ser
				405					410					415	
Leu	Ala	Glu	Lys	Pro	Tyr	Cys	Ser	Gln	Val	Asp	Phe	He	Tyr	Arg	Gln
			420					425					430		
Glu	Arg	Gly	Gly	Gly	Ser	Ser	Phe	Asp	Leu	Arg	Lys	Asp	Ala	Ser	Gln
		435					440					445			
Ser	Glu	Val	Ser	Gly	Glu	Asn	Glu	Gly	Asn	Leu	Pro	Ser	Pro	Glu	Glu
	450					455					460				
Asp	Gly	Phe	Thr	He	Ser	Leu	Ser	His	Val	Ala	Val	Pro	Gly	Ser	Pro
465					470					475					480
Asp	Gln	Arg	Asp	Thr	Val	Thr	Thr	Pro	Leu	Arg	Glu	Val	Ser	Ala	Asp
				485					490					495	
61 y	Pro	He	Gln	Val	Thr	Ser	Thr	Val	Lys	Asn	Gly	His	Ala	Val	Pro
			500					505					510		
G1 y	Glu	Asp	Pro	Arg	Gly	Gln	Leu	Gly	Thr	His	Ala	Glu	Tyr	Ala	Ser
		515					520					525			
Gly		Met	Ser	Pro	Leu	Thr	Met	Ser	Leu	Leu		Asn	Pro	Asp	Asn
	530					535					540				
	Gly	Ser	Pro	Pro		Glu	Gln	Leu	Val		Asp	Gly	Ala	Thr	
545					550					555					560
Ser	Leu	Val	Ala		Ser	Thr	Gly	Gly		Val	Val	Ser	His		Val
		0.7		565	0.1				570					575	
Pro	Ser	Gly		GIn	Glu	Ala	Ala		Pro	Val	Ser	Ser		lhr	Arg
			580			~	**	585					590	0.1	
HIS	Leu	$_{\rm Irp}$	Leu	Ser	5er	Ser	Pro	Pro	Asp	Asn	Lys	Pro	GIY	ыу	Asp
		E05					coo					COF			
		595			D	C	600	11.	Λ	C1	ш.	605	Λ1	۸	1
		Ala			Pro	Ser	Pro	lle	Arg	Gln	His		Ala	Asp	Lys

Leu Pro Ser Arg Glu Ala Asp Leu Gly Glu Ala Cys Gln Ser Arg Glu Thr Val Leu Phe Ser His Glu His Met Gly Ser Glu Gln Tyr Asp Ala Asp Ala Glu Glu Thr Gly Leu Asp Gly Ser Trp Gly Phe Pro Gly Lys Pro Phe Thr Thr Ile His Met Gly Val Pro His Ser Gly Pro Thr Leu Thr Pro Arg Thr Gly Ser Ser Asp Val Ala Asp Gln Leu Trp Ala Gln Glu Arg Lys His Pro Thr Arg Leu Gly Trp Gln Glu Phe Gly Leu Ser Thr Asp Pro 11e Lys Leu Pro Cys Asn Ser Glu Asn Val Thr Trp Leu Lys Pro Arg Pro Ile Ser Arg Cys Leu Ala Arg Pro Ser Ser Pro Leu Val Pro Ser Cys Ser Pro Lys Thr Ala Gly Thr Leu Arg Gln Pro Thr Leu Glu Gln Ala Gln Gln Val Val Ile Arg Ala His Gln Glu Gln Leu Asp Glu Met Ala Glu Leu Gly Phe Lys Glu Glu Thr Leu Met Ser Gln Leu Ala Ser Asn Asp Phe Glu Asp Phe Val Thr Gln Leu Asp Glu Ile Met Val Leu Lys Ser Lys Cys 11e Gln Ser Leu Arg Ser Gln Leu Gln Leu Tyr Leu Thr Cys His Gly Pro Thr Ala Ala Pro Glu Gly Thr Val Pro Ser 

<210> 3773

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3773 Met Arg Gly Leu Pro Val Cys Leu Ala Gln Asn Ser Ser Pro Ala Pro 5 10 15 Val Asn Thr Trp Leu Ala Thr Ala Leu Lys Pro Arg Gly Leu Ser Thr 20 25 Thr Pro Gly Gly Gly Gly Leu Lys Arg Lys Gly Gln Lys Gln Val Ala 40 45 Ser Ala Gly Gln Val Gln Trp Gly Phe Ser Gln Thr His Thr Ile Lys 50 55 Cys Val Cys Arg Leu Thr Val Ser Pro Ala Gly Gly Phe Gln Gly Pro 70 75 Pro Val Ser Leu Leu Ser Trp Asp Met Tyr Leu Leu Ile Met Pro Leu

90

95

Ser Met Leu Trp Leu Met 100

85

<210> 3774 <211> 243 <212> PRT <213> Homo sapiens

<400> 3774

				85					90					95	
Leu	Pro	Thr	Ser	Gln	Thr	Gly	Arg	Pro	Gly	Arg	G1 y	Ala	Pro	His	Leu
			100					105					110		
Pro	Asp	Arg	Val	Ala	Gly	Gln	Arg	Arg	Ser	Ser	Pro	Pro	Arg	Arg	Gly
		115					120					125			
Gly	Arg	Ala	Glu	Ala	Leu	His	Thr	Ser	Gln	Met	Gly	Trp	Trp	Pro	Asp
	130					135					140				
Arg	Gly	Ala	Pro	His	Asn	Leu	Asp	Gly	Ala	Ala	Gly	Gln	Arg	His	Ser
145					150					155					160
Pro	Leu	Pro	Arg	Arg	Gly	Ser	Arg	Ala	Glu	Trp	Pro	Gly	Arg	Gly	Thr
				165					170					175	
Pro	His	Asn	Pro	Asp	Gly	Ala	Ala	Gly	Gln	Arg	Arg	Ser	Ser	Pro	Pro
			180					185					190		•
Arg	Trp	Gly	Ser	Arg	Glu	Glu	Ala	Leu	Leu	Thr	Ser	Gln	Thr	Leu	Gly
		195					200					205			
Gly	Gln	Ala	Glu	Ala	Leu	Leu	Thr	Ser	Gln	Met	Gly	Trp	Leu	Gly	Arg
	210					215					220				
Gly	Ala	Pro	His	Phe	Pro	Asp	Lys	Val	Ala	G1 y	Gln	Arg	Arg	Tyr	Ser
225					230					235					240
Pro	Pro	Arg													

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3775

Met Gly Glu Thr Gln Gly Pro Gly Pro Gln Phe Ser Val Leu Cys Pro leu Fro Gly Pro Gln Phe Ser Val Leu Cys Pro leu Fro Gly Pro Gly His Leu Cys Asn Asn Ser IIe Gly Lys His Leu Gly Asn Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser 35

Gln	Arg	Phe	Gln	Ala	His	Leu	Gln	Glu	Met	Gly	Ala	Pro	Asn	Ala	Trp
	50					55					60				
Ser	Thr	lle	He	Val	Pro	Gly	Met	Lys	Asp	Ala	Val	Пe	His	Ala	Leu
65					70					75					80
Gln	Thr	Ser	Gln	Asp	Thr	Val	G1n	Cys	Arg	Lys	Ala	Ser	Phe	Glu	Leu
				85					90					95	
Tyr	Gly	Ala	Asp	Phe	Val	Phe	Gly	Glu	Asp	Phe	Gln	Pro	Trp	Leu	He
			100					105					110		
Glu	lle	Asn	Ala	Ser	Pro	Thr	Met	Ala	Pro	Ser	Thr	Ala	Val	Thr	Ala
		115					120					125			
Arg	Leu	Cys	Ala	Gly	Val	Gln	Ala	Asp	Thr	Leu	Arg	Val	Val	He	Asp
	130					135					140				
Arg	Arg	Leu	Asp	Arg	Asn	Cys	Asp	Thr	Gly	Ala	Phe	Glu	Leu	He	Tyr
145					150					155					160
Lys	Gln	Pro	Ala	Val	Glu	Val	Pro	Gln	Tyr	Val	Gly	Пе	Arg	Leu	Leu
				165					170					175	
Val	Glu	Gly	Phe	Thr	lle	Lys	Lys	Pro	Met	Ala	Met	Cys	His	Arg	Arg
			180					185					190		
Met	Gly	Val	Arg	Pro	Ala	Val	Pro	Leu	Leu	Thr	Gln	Arg	Gly	Ser	Gly
		195					200					205			
Glu	Ala	Glu	Val	Ser	Gly	Ser	Leu	Arg	Lys	Leu	Pro	Lys	Val	Ala	Gln
	210					215					220				
Leu	Arg	Arg	Gly	Thr	Ala	Gly	Met	Gln	Thr	Gln	Pro	Val	Thr	Thr	Ser
225					230					235					240
Pro	Ala	Ser	Thr	Pro	Arg	Pro	Ser	Cys	Leu	Leu	Pro	Met	Tyr	Ser	Asp
				245					250					255	
Thr	Arg	Ala	Arg	Ser	Ser	Asp	Asp	Ser	Thr	Ala	Ser	Trp	Trp	Ala	Leu
			260					265					270		
Arg	Pro	Cys	Arg	Pro	Gln	Ala	Arg	Pro							
		275					280								

<211> 470

<212> PRT

<213≻ Homo sapiens

<400	)> 3	776													
Met	Asn	Glu	Glu	Asn	He	Asp	Gly	Thr	Asn	Gly	Cys	Ser	Lys	Val	Arg
1				5					10					15	
Thr	Gly	lle	Gln	Asn	Glu	Ala	Ala	Leu	Leu	Ala	Leu	Met	Glu	Lys	Thr
			20					25					30		
Gly	Tyr	Asn	Met	Val	Gln	Glu	Asn	Gly	Gln	Arg	Lys	Phe	Gly	Gly	Pro
		35					40					45			
Pro	Pro	Gly	Trp	Glu	Gly	Pro	Pro	Pro	Pro	Arg	G1 y	Cys	Glu	Val	Phe
	50					55					60				
Val	Gly	Lys	Ile	Pro	Arg	Asp	Met	Tyr	Glu	Asp	Glu	Leu	Val	Pro	Val
65					70					75					80
Phe	Glu	Arg	Ala	Gly	Lys	lle	Tyr	Glu	Phe	Arg	Leu	Met	Met	Glu	Phe
				85					90					95	
Ser	Gly	Glu	Asn	Arg	Gly	Tyr	Ala	Phe	Val	Met	Tyr	Thr	Thr	Lys	Glu
			100					105					110		
Glu	Ala	Gln	Leu	Ala	Ile	Arg	lle	Leu	Asn	Asn	Tyr	Glu	He	Arg	Pro
		115					120					125			
Gly		Phe	Ile	Gly	Val	Cys	Val	Ser	Leu	Asp	Asn	Cys	Arg	Leu	Phe
	130					135					140			_	
He	Gly	Ala	He	Pro	Lys	Glu	Lys	Lys	Lys	Glu	Glu	He	Leu	Asp	GTu
145					150					155					160
Met	Lys	Lys	Val		Glu	Gly	Val	Val		Val	He	Val	Tyr		Ser
				165	_				170					175	
Ala	Thr	Asp		Thr	Lys	Asn	Arg		Phe	Ala	Phe	Val	Glu	Tyr	GIu
			180					185		_	_		190	a *	<i>-</i>
Ser	His		Ala	Ala	Ala	Met		Arg	Arg	Lys	Leu		Pro	Gly	lhi
DI	C.1	195	т	61		TI	200	<b>C</b> 1	W 1		т	205		1)	6.1
Pne		Leu	rp	61 y	HIS		11e	GIN	vai	Asp		Ala	Asp	Pro	GTU
1	210	V - 1	۸	C1	C1	215	M.A	C1	Λ	V = 1	220	V I	1	Т	V 1
	61u	val	Asp	GIU		ınr	мет	GIN	Arg	va1 235	Lys	vai	Leu	Tyr	240
225	Acn	Lan	Mot	116	230 Sar	Thr	The	C1v	C1		116	Lvc	Ala	Clu	
MI g	ASII	Leu	met		Sei	1117	1111	Oju		1111	110	Lys	Ата	255	1116
Acr	lve	Pho	Lve	245 Pro	61.0	A1.	Val	Glu	250	Val	lve	lve	Leu		Acr
nəll	LyS	THE	260	01.1	Oly	nid	141	265	ит В	101	Lys	rys	270	лів	usb
			200					200					210		

Tyr Ala Phe Val His Phe Phe Asn Arg Glu Asp Ala Val Ala Ala Met Ser Val Met Asn Gly Lys Cys Ile Asp Gly Ala Ser Ile Glu Val Thr Leu Ala Lys Pro Val Asn Lys Glu Asn Thr Trp Arg Gln His Leu Asn Gly Gln Ile Ser Pro Asn Ser Glu Asn Leu Ile Val Phe Ala Asn Lys Glu Glu Ser His Pro Lys Thr Leu Gly Lys Leu Pro Thr Leu Pro Ala Arg Leu Asn Gly Gln His Ser Pro Ser Pro Pro Glu Val Glu Arg Cys Thr Tyr Pro Phe Tyr Pro Gly Thr Lys Leu Thr Pro Ile Ser Met Tyr Ser Leu Lys Ser Asn His Phe Asn Ser Ala Val Met His Leu Asp Tyr Tyr Cys Asn Lys Asn Asn Trp Ala Pro Pro Glu Tyr Tyr Leu Tyr Ser Thr Thr Ser Gln Asp Gly Lys Val Leu Leu Val Tyr Lys Ile Val Ile Pro Ala Ile Ala Asn Gly Ser Gln Ser Tyr Phe Met Pro Asp Lys Leu Cys Thr Thr Leu Glu Asp Ala Lys Glu Leu Ala Ala Gln Phe Thr Leu Leu His Leu Gly Pro Phe 

<210> 3777

<211> 382

<212> PRT

<213> Homo sapiens

<400> 3777

Met Phe Cys Leu Glu Ala 11e Val Lys His Ser Glu 11e Ser Thr His

1 5 10 15

Cys	Asp	Lys	lle	Glu	Ala	Asn	Gly	Gly	Leu	Gln	Leu	Leu	Gln	Arg	Leu
			20					25					30		
Tyr	Arg	Leu	His	Lys	Asp	Cys	Pro	Lys	Val	Gln	Arg	Asn	He	Met	Arg
		35					40					45			
Val	He	Gly	Asn	Met	Ala	Leu	Asn	Glu	His	Leu	His	Ser	Ser	He	Val
	50					55					60				
Arg	Ser	Gly	Trp	Val	Ser	lle	Met	Ala	Glu	Ala	Met	Lys	Ser	Pro	His
65					70					75					80
Ile	Met	Glu	Ser	Ser	His	Ala	Ala	Arg	Ile	Leu	Ala	Asn	Leu	Asp	Arg
				85					90					95	
Glu	Thr	Val	Gln	Glu	Lys	Tyr	Gln	Asp	Gly	Val	Tyr	Val	Leu	His	Pro
			100					105					110		
Gln	Tyr		Thr	Ser	Gln	Pro		Lys	Ala	Asp	Val		Phe	He	His
		115					120					125			
Gly		Met	Gly	Ala	Ala		Lys	Thr	Trp	Arg		Gln	Asp	Ser	Glu
	130					135					140		_		
	Ala	Val	He	Glu		Pro	Met	Glu	Asp		Asp	Arg	Tyr	Thr	
145				m	150					155					160
Cys	Trp	Pro	Lys		Trp	Leu	Ala	Lys		Cys	Pro	Ala	Leu		He
7.1	C	17. 1	61	165		TC)	C	1	170		т		4.3	175	C
11e	Ser	vai		lyr	Asp	Inr	Ser		Ser	Asp	Trp	Arg	Ala	Arg	Cys
D.	10 .	C1	180	1	C	71.	41.	185	Λ	C	<b>A</b>	C1	190	1	A
Pro	мет		Arg	Lys	ser	116		rne	Arg	ser	ASII		Leu	Leu	Arg
1	Lau	195	410	A 1 a	C1	Val	200	1 00	A 22 cr	Dage	Val	205	Т	11.	Can
Lys		Arg	ита	нта	GIY	215	GIY	ASP	Arg	110	220	vai	Trp	116	sei
Hic	210 Sor	Mot	Clv	Glv	Lou		Val	lve	lve	Mot		Lou	Glu	Ala	Sor
225	561	Met	diy	Oly	230	Leu	101	Lys	Lys	235	Leu	Leu	Olu	MIG	240
	lve	Pro	Glu	Met		Thr	Val	He	Asn		Thr	Ara	Gly	He	
1111	Lys	110	Olu	245	001	111.1	, (1)	110	250	71.511	1 113	мь	Oly	255	110
Phe	Tvr	Ser	Val		His	His	Glv	Ser		Leu	Ala	Glu	Tyr		Val
, ,,,	.,.	001	260			****	01)	265	8	1300		010	270		
Asn	Пe	Arg		Leu	Leu	Phe	Pro		Leu	Glu	Val	Lvs	Glu	Leu	Ser
	3,30	275	. , ,	200	250		280	001	13 C. U	Olu		285	., u	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	001
Lvs	Asn		Pro	Ala	Leu	Lvs		Len	Gln	Asp	Asp		Leu	Glu	Phe
2,5	290	~~.	.10	,,,,,	200	295		200	O 1 11	р	300		.,ou	0,10	

<210> 3778

<211> 164

<212> PRT

<213> Homo sapiens

<400> 3778

Met Phe Gln Arg Leu Asn Lys Met Phe Val Gly Glu Val Ser Ser Ser Ser Asn Glu Pro Glu Phe Asn Glu Lys Glu Asp Asp Glu Trp Ile Leu Val Asp Phe Ile Asp Thr Cys Thr Gly Phe Ser Ala Glu Gly Glu Glu Glu Glu Glu Asp lle Ser Glu Glu Ser Pro Thr Glu His Pro Ser Val Phe Ser Cys Leu Pro Ala Ser Leu Glu Cys Leu Ala Asp Thr Ser Asp Ser Cys Phe Leu Gln Phe Glu Ser Cys Pro Met Glu Glu Ser Trp . Phe Ile Thr Pro Pro Pro Cys Phe Thr Ala Gly Gly Leu Thr Thr Ile Lys Val Glu Thr Ser Pro Met Glu Asn Leu Leu Ile Glu His Pro Ser Met Ser Val Tyr Ala Val His Asn Ser Cys Pro Gly Leu Ser Glu Ala

Thr Arg Gly Thr Asp Glu Leu His Ser Pro Ser Ser Pro Arg Ala Arg
145 150 155 160
Lys Ser Cys Leu

<210> 3779

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3779

Met Trp Pro Asp Gly Ser Ser Phe Thr Gly Thr Phe Tyr Leu Ser His

1 5 10 15

Arg Glu Gly Tyr Gly Thr Met Tyr Met Lys Thr Arg Leu Phe Gln Thr
20 25 30

His Cys His Asn Asp Ile Val Asn Leu Leu Leu Asp Cys Gly Ala Asp
35 40 45

Val Asn Lys Cys Ser Asp Glu Gly Leu Thr Ala Leu Ser Met Cys Phe
50 55 60

Leu Leu His Tyr Pro Ala Gln Ser Phe Lys Pro Asn Val Ala Glu Arg
65 70 75 80

Thr lle Pro Glu Pro Gln Glu Pro Pro Lys Phe Pro Val Val Pro lle 85 90 95

Leu Ser Ser Phe Met Asp Thr Asn Leu Glu Ser Leu Tyr Tyr Glu
100 105 110

Val Asn Val Pro Ser Gln Gly Ser Tyr Glu Leu Arg Pro Pro Ala 115 120 125

Pro Leu Leu Pro Arg Val Ser Gly Ser His Glu Gly Gly His Phe 130 135 140

Gln Asp Thr Gly Gln Cys Gly Gly Ser Met Asp His Arg Ser Ser Ser 145 150 155 160

Leu Lys Gly Asp Ser Pro Leu Val Lys Gly Ser Leu Gly His Val Glu 165 170 175

Ser Gly Leu Glu Asp Val Leu Gly Asn Thr Asp Arg Gly Ser Leu Cys 180 185 190 Ser Ala Glu Thr Lys Phe Glu Ser Asn Val Cys Val Cys Asp Phe Ser 195 200 205 Ile Glu Leu Ser Gln Ala Met Leu Glu Arg Ser Ala Gln Ser His Ser 210 215 220 Leu Leu Lys Met Ala Ser Pro Ser Pro Cys Thr Ser Ser Phe Asp Lys 225 230 235 240 Gly Thr Met Arg Arg Met Ala Leu Ser Met 11e Glu 245 250

<210> 3780

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3780

Met Phe Cys Phe Asp Asn Thr Phe Ser Thr Ile Ser Glu Lys Val Ile
1 5 10 15

Phe Phe Glu Leu IIe Leu Asp Asn Met Gly Glu Gln Ala Gln Glu Gln
20 25 30

Glu Asp Trp Lys Lys Tyr Ile Thr Gly Thr Asp Ile Leu Asp Met Lys
35 40 45

Leu Glu Asp 11e Leu Glu Ser 11e Asn Ser 11e Lys Ser Arg Leu Ser 50 55 60

Lys Ser Gly His Ile Gln Ile Leu Leu Arg Ala Phe Glu Ala Arg Asp 65 70 75 80

Arg Asn 11e Gln Glu Ser Asn Phe Asp Arg Val Asn Phe Trp Ser Met

85 90 95

Val Asn Leu Val Val Met Val Val Val Ser Ala Ile Gln Val Tyr Met 100 105 110

Leu Lys Ser Leu Phe Glu Asp Lys Arg Lys Ser Arg Thr 115 120 125

<210> 3781

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3781

Met Ser Cys Ser Pro Asn Arg Ala Gly His Ser Trp Glu Lys Arg Gly

1 5 10 15

Gln Pro Leu Gly Val Val Arg Pro Leu Pro Ala Pro Thr Leu Ser Leu 20 25 30

Val Leu Leu Ser Trp Ser Pro Pro Ile Ala Ser Val Val Pro His Asn 35 40 45

Arg Val Trp Leu Cys Ala Gly Pro Gly Ser Gln Glu Ser Leu Pro Ser 50 55 60

Glu Arg Glu Cys Val Phe Leu Leu Pro Leu Pro Phe Pro Ser Met Ala 65 70 75 80

Leu Leu Leu Pro Ser Pro Arg Thr Ser Pro Ser Leu Gly Asp Ala Phe
85 90 95

Cys Ser Leu Gln Pro Cys Pro Leu Leu Ser Phe Arg Val Ser Arg Glu 100 105 110

Pro Leu Arg Ile Ala Thr Cys Arg Gly Ala Val Leu Ser Pro Gln Phe 115 120 125

Leu Ser Leu Trp Tyr Leu Met Leu Leu Thr Thr Ala Ser Phe Leu Thr
130 135 140

Ser Gly Phe Leu Thr Pro Phe Pro Ala Cys Ala Leu Ala Ala Ser Pro 145 150 155 160
Pro Cys Thr Gly Phe Arg Gly Cys Ser Ala Pro Gly Ala Ala Gln Ala

165 170 175

Cys Pro Leu

<210> 3782

<211> 1028

<212> PRT

<213> Homo sapiens

<400> 3782

Met	Asp	Asp	Gln	Tyr	Arg	Thr	Leu	Met	Arg	Ile	Ser	Val	Ala	Asp	Pro
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Met	Val	Leu	Ser	Leu	Val	Val	Pro	Ser	Ala	Glu	Arg	Ser	Pro	Tyr	Phe
			20					25					30		
Gln	Gly	Gln	Gln	Leu	Gln	G1n	Leu	Leu	Gln	Ala	Gly	Ser	Val	Glu	Leu
		35				•	40					45			
Glu	Gly	He	He	Met	Ser	Leu	Glu	Ser	Val	Leu	Tyr	Gly	Val	Cys	Ala
	50					55					60				
His	Phe	Pro	Arg	Leu	Phe	Phe	Leu	Ser	Asp	Ser	Glu	Leu	Val	Ala	Leu
65					70					75					80
Leu	Ala	Ala	Arg	Leu	Glu	Ser	Cys	Glu	Ala	Gln	Leu	Trp	Val	Arg	Arg
				85					90					95	
Cys	Phe	Pro	His	Val	His	Ala	Val	Ser	Phe	Arg	Ser	Cys	Pro	Thr	Gly
			100					105					110		
Glu	Lys	Asn	Thr	Asp	Asp	Trp	Glu	Ser	Ser	Pro	Asn	Thr	Gln	Thr	Gln
		115					120					125			
Val	Glu	Ala	Leu	Ala	Val	Leu	Gly	Ala	Gly	G] y	Glu	Glu	Val	Lys	Leu
	130					135					140				
Gln	Gly	Pro	Leu	Pro	Leu	His	Pro	Asp	Leu	Pro	Lys	Trp	Leu	Ala	Ser
145					150					155					160
Leu	Glu	Lys	Cys	Leu	Arg	Leu	Ala	Leu	Val	His	Met	Leu	Gln	Gly	Cys
				165					170					175	
Val	Ala	Ala	Arg	Leu	Ala	Arg	Gly	Pro	Ser	Leu	Gly	Glu	Ala	Leu	Lys
			180					185					190		
Gln	Leu	Pro	Lys	Gln	Asn	Lys	Leu	Tyr	Leu	Gln	Leu	Tyr	Val	Gln	His
		195					200					205			
Trp	lle	Asp	Leu	Val	Gln	Ala	Phe	Pro	Trp	Gln	Cys	Val	Leu	Val	Ala
	210					215					220				
G]u	Glu	Val	Val	Trp		Ala	Glu	Met	Glu		Ala	Leu	Leu	Glu	
225					230					235					240
Gly	Thr	Leu	Ala		Val	Ser	Met	His		Arg	Lys	Leu	Glu		Leu
				245					250					255	
Val	Asn	Phe		Arg	Ala	Gln	Arg	Ala	Ser	G]n	Gly	G] y		Ser	Leu
	_		260					265	_				270		
Pro	Ser		Arg	Gln	Thr	Ser		Leu	Ser	Ala	Leu		Val	Met	Ala
		275					280					285			

Val	Thr	His	Arg	Asp	He	Ala	Gln	Leu	Leu	Glu	Gln	His	Gln	Val	Ser
	290					295					300				
Asp	Leu	Thr	Asp	Phe	His	Trp	Val	Arg	Gln	Leu	Lys	Tyr	His	Leu	Gly
305					310					315					320
Ser	Pro	His	He	Пe	Pro	Lys	Ser	Pro	Leu	Gln	Ser	Leu	Lys	Thr	He
				325					330					335	
Ala	Ser	Ser	Glu	Pro	Ser	Leu	Ser	Pro	Ala	Ala	Cys	Trp	He	Asp	Val
			340					345					350		
Leu	Gly	Arg	Ser	Phe	Leu	Tyr	Asn	Tyr	Glu	Tyr	Leu	Gly	Pro	Arg	Leu
		355					360					365			
Gly	Pro	Leu	Pro	Ser	Leu	Leu	Pro	Glu	Arg	Pro	Ala	Leu	Val	Leu	Leu
	370					375					380				
Leu	Ala	Leu	Glu	Glu	Va]	Ala	Cys	Gly	Thr	Val	Leu	Gly	Pro	Asn	Gly
385					390					395					400
Val	Gly	Lys	Arg	Ala	He	Val	Asn	Ser	Leu	Ala	Gln	Ala	Leu	Gly	Arg
				405					410					415	
Gln	Leu	Val	Met	Leu	Pro	Cys	Ser	Pro	Gln	lle	Glu	Ala	G1n	Cys	Leu
			420					425					430		
Ser	Asn	Tyr	Leu	Asn	Gly	Ala	Leu	Gln	Gly	Gly	Ala	Trp	Leu	Leu	Leu
		435					440					445			
Glu	Lys	Val	His	Gln	Leu	Pro	Pro	Gly	Leu	Leu	Ser	Ala	Leu	Gly	Gln
	450					455					460				
Arg	Leu	G1 y	Glu	Leu	His	His	Leu	Tyr	Ala		Leu	Tyr	G1n	Glu	
465					470					475					480
Ser	Arg	Asn	Thr		Thr	He	Asp	Pro		Gln	Pro	Gln	Leu		Gly
				485					490					495	
Ser	Ser	Phe		Glu	Lys	His	His		Ser	Val	Arg	Leu	Gly	Tyr	Gly
			500					505					510		
Cys	Leu		Val	Leu	Arg	Ala		Ser	Ser	Ala	Val		Ala	Asn	Leu
		515			ъ		520			,	Б	525	,		<b>61</b>
His		Leu	Leu	Arg	Pro		Ala	Leu	Ala	Leu		Asp	Leu	Arg	GIn
	530			ar 1		535	0.1		0.1		540			151	6.1
	Ala	61u	Leu	Ihr		Leu	Gly	Ala	61 y		Arg	Asp	Ala	Phe	
545	A 1	ті	<b>A</b>		550	1.	DI	DI	C .	555	C1	Λ.	C1		560
met	Ala	Ihr	Arg		zer	Lys	rne	rne		Leu	61u	Arg	Glu		val
				565					570					575	

Ser	Gly	Pro	Leu	Pro	Cys	Arg	Leu	Pro	Leu	Leu	Lys	Gln	Πle	Leu	Glu
			580					585					590		
Asp	Thr	lle	Arg	Thr	Leu	Asn	Val	Thr	Lys	Glu	Glu	Pro	Lys	Cys	Gln
		595					600					605			
Lys	Pro	Arg	Ser	Leu	Ala	Ala	11e	Glu	Glu	Ala	Ala	Leu	Leu	His	Ala
	610					615					620				
Leu	Leu	Arg	Ser	Pro	Leu	Phe	Ser	He	Leu	Asn	Gly	Leu	His	Leu	His
625					630					635					640
Asn	Leu	Arg	Gly	Leu	Leu	Cys	Ala	Leu	Phe	Pro	Ser	Ala	Ser	Gln	Val
				645					650					655	
Leu	Ala	Glu	Pro	Met	Thr	Tyr	Lys	Leu	Met	Lys	Pro	Leu	Val	Val	Glu
			660					665					670		
Glu	Leu	Gln	Gln	Val	Gly	Leu	Asp	Pro	Ser	Pro	Asp	Пе	Leu	Gly	Ser
		675					680					685			
Leu	Glu	Gln	Leu	Ser	Gln	Ala	Leu	Ser	Arg	Ala	Ser	Gly	He	Leu	Leu
	690					695					700				
Leu	Gly	Pro	Ala	Gly	Ser	Gly	Lys	Thr	He	Cys	Trp	His	Ser	Leu	Phe
705					710					715					720
Lys	lle	Gln	Asn	Arg	Leu	Ala	Ala	Met	Glu	Asp	Thr	Ser	Thr	Gln	Gly
				725					730					735	
Cys	Gln	Pro	Val	Glu	He	Thr	His	Leu	Tyr	Pro	Ser	Gly	Leu	Ser	Pro
			740					745					750		
Gln	Glu	Phe	Leu	Gly	Trp	Leu	Glu	G1 y	Ser	Cys	Trp	His	His	Gly	He
		755					760					765			
Phe	Pro	Lys	Val	Leu	Arg	Ala	Ala	G1 y	Gln	Cys	Asn	Asn	Met	Gly	Gln
	770					775					780				
Lys	Arg	Gln	Thr	Glu		Ser	He	Gly	He		His	Trp	lle	He	Cys
785					790					795					800
Asp	Gly	Ala	Ser		Gly	Ala	Trp	Leu		Ser	He	Thr	Cys		Leu
				805					810					815	
Ser	Glu	Leu		Gln	Leu	Ser	Leu		Ser	G] y	Gln	Gln		Ala	Arg
-			820					825					830		
Pro	Pro	Gly	Thr	Phe	Leu	Leu		Glu	Val	Ala	Asp		Thr	Gly	He
		835					840					845		0.7	
Ser		Thr	Val	Val	Gly		Cys	Ala	Leu	Val		Cys	Gly	GIy	GJu
	850					855					860				

Gln Thr Trp Gln Cys 11e Leu Ser Ala Leu Met Ala Ser Leu Pro Tyr 865 870 875 Glu Tyr Arg Leu Gln His Arg Thr Val Ala Glu Leu Asn His Met Ala 885 890 895 Glu Val Leu Val Pro Ala Thr Leu Arg Phe Leu Thr Cys Gln Gly Val 905 Ser Ser Leu Leu Gln Val His Gly Gln Gln Ala Val Cys Ala Gly Val 920 Ala Glu Val Thr Ser Met Ala Arg lle Leu His Ser Leu Leu Asp Leu 930 935 His Leu Arg Leu Lys Glu Glu Lys Ala Pro Gly Pro Glu Asp Leu Ser 950 955 Tyr Ser Asp Pro Val Ala Gln Ser Phe Arg Ser Ser Lys Ser Ser Phe 965 970 975 Leu Asn Arg Ser Gln Val Asp Ser Asp Asp Val Pro Asp Lys Cys Arg 980 985 990 Glu His Leu Leu Ala Val Ser Ser Phe Leu Phe Ala Leu Ile Trp Gly 1000 Phe Gly Ala His Leu Pro Ser Arg Tyr Leu Pro Gly Trp Gly Met Gly 1010 1015 1020 Asp Ala Glu Gly 1025

<210> 3783

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3783

Met Asn His Ala Ser Cys Asn Thr Phe Ser Gln Thr Glu Thr Pro Lys

1 5 10 15

Tyr Ala Cys Asn Val Leu Thr Lys Lys Glu Ala lle Val Gln Leu Ala
20 25 30

Lys His Leu Asn Leu Phe Arg Val Arg Glu Glu Ser Ser Asn Cys Leu
35 40 45

Asp Val Thr Trp Arg Glu Gly Cys Gly Lys His His Ser Leu Gln Ala 55 Pro Phe Ser Leu Cys Glu Ala Phe Ser Lys Met Gln Pro Ala Leu Thr 65 70 75 80 His Gln Ala Trp Phe Cys Ser Pro Cys His Arg Asp Pro Ala Gly Ser 90 Leu Ala Met Arg Arg Cys Asn Cys Val Ser Cys Gly Leu Leu Gln Lys 105 Asp Trp Pro Pro Pro Gln Thr 115 <210> 3784 <211> 139 <212> PRT <213> Homo sapiens <400> 3784 Met Leu Leu His Gly Leu Ser Gln Ala Arg Pro Ser Val Gly Leu Glu 5 10 Gln Leu Ser Cys Gln Thr Leu Thr Arg Leu Gly Lys Gly Leu Val Thr 25 Gly Gln Phe Pro Ala Cys Arg Ala Pro Asn Cys Cys Ser Arg Gln Val 35 40 45 Pro Glu Arg Gln Phe Gln Ile Asn Ala Cys Pro Ser Gln Gly Thr Ala 55 Glu Arg Glu Arg Pro Glu Thr Ala Thr Thr Pro Phe Leu His Pro Leu 70 75 Cys Pro Pro Gly 11e Gln Leu Asn His Leu Leu Leu His 11e Leu Gly 85 90 95 Lys Lys Asp Asp Ala Val Leu Gly Pro Pro Ala lle Asn Asp Arg Gln 105 Leu Phe Asp Leu Ala Gly Ser Gln Val Asp Val Phe Ser Gly Ala Gln 115 120 125 Leu Phe Leu Gln Pro Thr Ser Gln Val Asp Ser

135

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<211> 1224
<212> PRT
<213> Homo sapiens
<400> 3785
Met Thr Cys Thr Lys Asn Pro Gln Asn Leu Asn Gln Ile His Glu Glu
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                                      10
Thr Ala Lys Lys Ala Gln Asn Leu Val Leu Pro Asn Arg Lys Ser Pro
                                 25
Ser Pro Val Ala Pro His Pro Ser Thr Phe Val Ala Thr Pro Ala Ser
         35
                             40
                                                  45
His Asn Leu Val Asn Gln Thr Asn Gly Thr Thr Lys Glu Ser Ala Leu
                         55
Leu Leu His Val Leu Leu Met Val Pro Asp Gly Lys Asp Phe Ile Ser
                     70
                                         75
Gly Glu Ser Glu Lys Gln Ser Pro Cys Asn Val Tyr Leu Asn Cys Lys
                                     90
Leu Phe Ser Thr Glu Glu Val Thr Arg Ser Val Ile Ala Trp Gly Thr
                                105
Thr Gln Pro Val Phe Asn Phe Ser Gln Val Ile Pro Val Ser Leu Ser
        115
                            120
                                                 125
Ser Lys Tyr Leu Glu Arg Leu Lys Asn Asn Val Met Val Ile Glu Thr
                        135
                                            140
Trp Asn Lys Val Arg Ser Pro Gly Gln Asp Lys Leu Leu Gly Leu Val
                    150
                                        155
Lys Leu Pro Leu His Gln Phe Tyr Met Ser Phe Lys Asp Ala Lys Ile
                165
                                    170
Ser Arg Leu Leu Asp Ala Gln Tyr Pro Val Val Ala Val Asp Ser
            180
                                185
Tyr Met Pro Val 11e Asp Val Phe Ser Gly His Gln Asn Gly Ser Leu
        195
                            200
                                                 205
Arg Val Phe Leu Ala Met Gly Ser Ser Asn Gln Ile Met Ala Leu Gln
   210
                                            220
                        215
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Arg	Leu	Lys	Asn	Glu	Glu	Gl y	Thr	Leu	Pro	Pro	Phe	Ser	Pro	Arg	Pro
225					230					235					240
Ala	His	Phe	Leu	Asp 245	Gln	Pro	Thr	Ala	Ala 250	Ser	Val	Ala	Met	Л1а 255	G]u
Asp	Arg	Gly	Asn 260	Gly	Leu	Met	Glu	His 265	Cys	Phe	Glu	He	His 270	lle	Glu
Met	Val	Lys 275	Gly	Leu	Ala	Pro	Leu 280	Gln	Ala	Thr	Val	Trp 285	G1 y	Glu	Ala
Asp	Cys 290	Tyr	Val	G1n	Tyr	Tyr 295	Phe	Pro	Val	Gln	His 300	Ser	Gln	Ser	Ser
Val 305	Leu	Lys	Gly	Pro	Glu 310	Phe	Leu	Glu	Asn	Gly 315	He	Thr	Leu	Lys	Pro 320
Phe	Arg	Thr	Ala	Thr 325	Thr	Leu	Cys	Val	Pro 330	Asp	Pro	He	Phe	Asn 335	Ser
Glu	His	His	His 340	Ser	Leu	Leu	Leu	Pro 345	Ala	Glu	Val	Pro	Val 350	Gln	Arg
Leu	Leu	Leu 355	Ser	Ala	Phe	Ser	Ala 360	Gln	Gly	Leu	Val	Pro 365	Gly	Gly	Gly
Val	G1n 370		Glu	lle	Trp	Cys		Tyr	Tyr	Tyr	Pro 380		Val	Arg	Asp
Gln 385		Val	Ala	Lys	Gly 390		Leu	Pro	Leu	Ser 395	Arg	lle	Cys	Ala	Met 400
	Thr	Thr	Gln	His 405	Arg	Glu	Asp	Val	Gl y 410		Gln	Thr		Asn 415	
Pro	Leu	Thr	Pro 420		lle	Glu	Asn	Arg 425		Glu	Leu	Arg			Ser
Ser	Gly	Leu 435		Asp	Val	G1 y	Leu 440		Tyr	Arg	Arg	Ser 445		Arg	Thr
Ala	Glu 450		Val	Leu	Ala	Ala 455		Thr	Val	Ser	He 460		Val	Gln	He
Ile 465		Ala	Cys	Gly	Leu 470		Ala	Ala	Ala	Lys 475	Ala	Leu	Ala	Glu	G1n 480
	Pro	Ala	Leu	Gln 485	Phe	Ser	Ala	Thr	Val 490	G1 y	Val	Asn	Ala	Ser 495	Val
Thr	Thr	His	Leu 500		Phe	Leu	Pro	Gln 505		Glu	Gln	Arg	Arg 510		His

Pro	Val	Ala	Cys	Ser	Phe	Cys	Pro	Glu	Phe	Ser	His	His	Val	Glu	Phe
		515					520					525			
Thr	Cys	Asn	Leu	Val	Thr	Gln	His	Cys	Ser	G1 y	Glu	Ala	Cys	Phe	Leu
	530					535					540				
Ala	Glu	Leu	Leu	Gl u	Phe	Ala	Glu	Val	Пe	Phe	Ala	Val	Tyr	His	G]u
545					550					555					560
Asn	Thr	Lys	Ser	Ala	Ser	Asp	He	11e	Ser	He	Glu	Ser	Cys	Lys	Glu
				565					570					575	
Tyr	Leu	Leu	Gly	Val	Val	Lys	Val	Pro	Thr	Lys	Glu	Leu	Leu	lle	Lys
			580					585					590		
Arg	Ser	Gly	lle	Thr	Gly	Trp	Tyr	Pro	He	Ile	Leu	Pro	Glu	Asp	Gly
		595					600					605			
Gly	Leu	Pro	His	Gly	Leu	Glu	Leu	Met	Gln	Lys	lle	Val	Gly	Gly	Leu
	610					615					620				
Glu	Leu	Ser	lle	Ser	Phe	Thr	His	Arg	Gly	Asp	Arg	Glu	Arg	Val	Leu
625					630					635					640
Glu	Ala	Ala	Glu	His	Leu	Gly	Trp	Ser	Phe	Glu	Asn	Ser	Leu	Lys	Asp
				645					650					655	
Phe	Val	Arg	Met	Asp	Glu	Gly	Glu	Pro	Ala	Thr	Val	Thr	11e	Ser	Thr
			660					665					670		
Pro	Arg	Leu	Trp	Leu	Pro	lle	His	Cys	Val	Leu	Leu	Ala	G1y	His	Asn
		675					680					685			
His	lle	His	Lys	Asn	Thr	Tyr	Cys	Tyr	Leu	Arg	Tyr	Lys	Phe	Tyr	Asp
	690					695					700				
His	Glu	Ala	Phe	Trp	Thr	Pro	Leu	Lys	Lys	Pro	Lys	Glu	Ser	Val	Asn
705					710					715					720
Lys	Lys	Gln	He	Met	Val	Thr	Phe	Lys	Ala	Ser	Lys	Arg	Ala	Glu	Val
				725					730					735	
Thr	Arg	Gly	Pro	Ser	Leu	Leu	Trp	Tyr	Phe	Arg	Glu	Glu	Arg	Leu	Glu
			740					745					750		
He	Gln	Val	Trp	Arg	Ala	Tyr	Gly	Asn	Asp	Ser	Val	Glu	Arg	Pro	His
		755					760					765			
Gln	Thr	Asp	Ser	Trp	lle	G]y	Ser	Ala	Tyr	Val	Asp	Leu	Ala	Arg	Leu
	770					775					780				
Gly	Glu	Arg	Ser	Ala	Arg	Thr	Leu	Thr	Val	Ser	Gly	Val	Tyr	Pro	Leu
785					790					795					800

Phe	Gly	Arg	Asn		Ser	Asn	Leu	Ser		Ala	Ala	Leu	Arg		His
				805					810					815	
Val	Val	Leu	Ser	Ser	Leu	Ser	Ser	His	Leu	Glu	Pro	Thr	His	Glu	Leu
			820					825					830		
Asp	Ser	Met	Asp	Cys	Ser	Ser	His	Ser	Glu	Ser	Glu	GIn	Leu	Pro	Arg
		835					840					845			
Arg	Asn	Asp	Glu	Val	Gln	Leu	Ser	Pro	Pro	Glu	Val	He	Ser	Cys	His
	850					855					860				
Gln	Lys	Ser	Pro	Ala	Ser	Thr	Gln	Val	Pro	Cys	Ser	Ser	Thr	Thr	Ala
865					870					875					880
Glu	Val	Arg	Leu	Thr	Arg	Glu	Gly	Pro	Ala	Asp	Leu	Asp	Gly	Thr	Phe
				885					890					895	
Ala	Val	Ser	11e	Leu	Val	Glu	Arg	Ala	Met	His	Leu	Ser	Leu	Lys	Gly
			900					905					910		
Ser	Pro	Leu	Thr	Glu	Arg	Lys	Val	Ser	lle	Pro	Ser	Cys	Cys	Val	Ser
		915					920					925			
Phe	Ala	Thr	Ala	Asp	Glu	Ser	Ser	Pro	Val	Tyr	Thr	Gln	Val	Val	Glu
	930					935					940				
Asn	Thr	Asp	Ser	Pro	He	Trp	Asn	Phe	Gln	Gln	Gln	Ser	Arg	Leu	Ser
945					950					955					960
Lys	Glu	Leu	Leu	Leu	Asp	Pro	Gln	Gln	Thr	Leu	Val	Phe	Lys	Val	Trp
				965					970					975	
His	Lys	Gly	Asp	Glu	Glu	Arg	Val	He	Gly	Phe	Ala	Ser	Val	Asp	Leu
			980					985					990		
Ser	Pro	Leu	Leu	Ser	Gly	Phe	Gln	Phe	Val	Cys	Gly	Trp	Tyr	Asn	He
		995					1000					1005			
Thr	Asp	Phe	Ser	Gly	Glu	Cys	Gln	Gly	Gln	lle	Lys	Val	Ala	Val	Ser
1	010					1015					1020			•	
Pro	Leu	Glu	Ser	Leu	He	His	Phe	Lys	Glu	Glu	Arg	Gln	Glu	Arg	Arg
1025	5				1030					1035				]	1040
Gly	Val	Glu	Thr	Ser	Lys	Ser	Leu	He	Pro	He	Tyr	Ser	Pro	Phe	Ser
				1045					1050					1055	
Phe	Pro	Ala	Ser	Asp	Thr	Tyr	Ala	Ala	Phe	Ser	Ser	His	Met	Ala	Arg
			1060					1065					1070		
Gln	Thr	Len	Asn	Gln	Len	Ala	Hic	Ala	Ser	Ser	lve	Glu	Lau	Asn	Pho

1075 1080 1085 Ser Ser Pro Gly Arg Ser Asp Thr Thr Arg Ser Gln Ala Ser Arg His 1100 1095 Glu Glu His Val Gln Asn Ile Arg Arg Phe His Glu Ser Leu His Leu 1105 1110 1115 1120 Gln Gly Glu Ala Pro Leu Pro Cys Asp Asp Lys Leu Thr Thr Ser Pro 1130 1125 Leu Ser Ser Gln Thr Ser Ile Leu Thr Ser Leu Arg Lys Asn Leu Ser 1140 1145 1150 Glu Leu Asp Gln Ile Gln Arg Tyr Phe Arg Gln Lys Leu Thr Lys Pro 1160 1165 Phe Leu Pro Leu Ser Pro Gln Thr Gln Thr Ala Ile Ser Gln His Gln 1175 1180 Glu Ser Cys Arg Asp His Leu Gly Pro Gly Ala Ser Ser Leu Asp Pro 1195 1190 1200 Gly Ser Gln Cys lle Leu Glu Lys Ser Ser Asn Leu Val Leu Gln Val 1205 1210 1215 Ser Ser Leu Ile Thr Gly Ser Tyr 1220

<210> 3786

<211> 186

<212> PRT

<213> Homo sapiens

<400> 3786

Met Thr Glu Met Ala Arg Cys Gln Trp Gln Val Pro Pro His Gly Leu 1 5 10 15Ala Gln Pro Pro Val Cys Ser Gln Gln Gly Gln Thr Thr Arg Trp Gly 20 25 30

Tyr Ser Ile Leu His Leu Leu Leu Cys Arg Ala Pro Gln Gly Thr Asn

35 40 45
Asn Ser Ser Gln Val Trp Pro Phe Pro Thr Leu Ser Pro Gln Leu Val

50 55 60

Ser Ser Ala Tyr Lys Glu Thr Val Thr Ser Ser 11e Phe Trp Lys Gly

70 75 65 80 Ser Glu Thr Gly Leu Leu Ser Phe Arg Val Ala Thr Arg Phe Ser Ile 90 85 95 Leu Gln Thr Leu Gly Thr Thr Ser His Leu Pro Leu Thr Gly Pro Gly 100 105 110 Leu Ser Lys Val Ser Gly Ala Gln Asp Val Thr Arg Ala Thr Ser Thr 120 Pro Ser Arg Thr Phe Asp Val Ser Val Asp Leu Ala Phe Gly Val Gln 130 135 140 lle Ile Gln Ala Leu Gln Asn Leu Pro Gln Asp Arg Gly Asn Val Cys 150 155 Leu Leu Gln Gly Thr Trp Phe Lys Leu Glu Arg Lys Val Arg Gln Gln 165 170 Gly Leu Ser Ser Cys Pro Arg Pro Asn Ala 180 185

<210> 3787

<211> 773

<212> PRT

<213> Homo sapiens

<400> 3787

 Met Glu Glu Glu Leu Asp Lys Met Glu Arg Glu Ala Cys Cys Phe Gly

 1
 5
 10
 15
 15

 Ser Glu Asp Glu Ser Ser Ser Lys Ala Glu Thr Glu Tyr Ser Phe Asp 20
 25
 30
 30

 Asp Trp Asp Trp Gln Asn Gly Ser Leu Ser Ser Leu Ser Leu Ser Leu Pro Glu 35
 40
 45

 Ser Thr Arg Glu Ala Lys Ser Asn Leu Asn Asn Met Ser Thr Thr Glu 50
 55
 60

 Glu Tyr Leu Ile Ser Lys Cys Val Leu Asp Leu Lys Ile Met Gln Thr 65
 70
 75
 80

Ile Met His Glu Asn Asp Asp Arg Leu Arg Asn Ile Glu Gln Ile Leu 85 90 95

Asp Glu Val Glu Met Lys Gln Lys Glu Gln Glu Glu Arg Met Ser Leu

			100					105					110		
Trp	Ala	Thr	Ser	Arg	Glu	Phe	Thr	Asn	Ala	Tyr	Lys	Leu	Pro	Leu	Ala
		115					120					125			
Val	Gly	Pro	Pro	Ser	Leu	Asn	Tyr	He	Pro	Pro	Val	Leu	Gln	Leu	Ser
	130					135					140				
Gly	Gly	Gln	Lys	Pro	Asp	Thr	Ser	Gly	Asn	Tyr	Pro	Thr	Leu	Pro	Arg
145					150					155					160
Phe	Pro	Arg	Met	Leu	Pro	Thr	Leu	Cys	Asp	Pro	Gly	Lys	Gln	Asn	Thr
				165					170					175	
Asp	Glu	Gln	Phe	Gln	Cys	Thr	Gln	Gly	Ala	Lys	Asp	Ser	Leu	Glu	Thr
			180					185					190		
Ser	Arg	He	Gln	Asn	Thr	Ser	Ser	Gln	Gly	Arg	Pro	Arg	Glu	Ser	Thr
		195					200					205			
Ala	Gln	Ala	Lys	Ala	Thr	Gln	Phe	Asn	Ser	Ala	Leu	Phe	Thr	Leu	Ser
	210					215					220				
Ser	His	Arg	Gln	Gly	Pro	Ser	Ala	Ser	Pro	Ser	Cys	His	Trp	Asp	Ser
225					230					235					240
Thr	Arg	Met	Ser	Val	Glu	Pro	Val	Ser	Ser	Glu	Ile	Tyr	Asn	Ala	Glu
				245					250					255	
Ser	Arg	Asn	Lys	Asp	Asp	Gly	Lys	Val	His	Leu	Lys	Trp	Lys	Met	Glu
			260					265					270		
Va]	Lys	Glu	Met	Ala	Lys	Lys	Ala	Ala	Thr	G1 y	Gln	Leu	Thr	Val	Pro
		275					280					285			
Pro	Trp	His	Pro	Gln	Ser	Ser	Leu	Thr	Leu	Glu	Ser	Glu	Ala	G]u	Asn
	290					295					300				
Glu	Pro	Asp	Ala	Leu	Leu	Gln	Pro	Pro	He	Arg	Ser	Pro	Glu	Asn	Thr
305															320
Asp	Trp	Gln	Arg		He	Glu	Tyr	His		Glu	Asn	Asp	Glu		Arg
				325					330					335	
Gly	Asn	Gly		Phe	Asp	Lys	Thr		Asn	Asn	Asp	Cys		Ser	Asp
		0.3	340	0.1				345	_		<i></i>		350		
GIn	His		Arg	GIn	Pro	Arg		Gly	Ser	Phe	Thr		He	Arg	His
D	c	355		6.7		6.7	360	D	0.7		•	365		r.,	0.1
Pro		Pro	Arg	GIn	Lys	Glu	61n	Pro	61u	HIS		61u	Ala	Phe	61n
A 1 a	370	Care	Λ ~	TL	1	375 Val	A 1 -	V = 1	C1	1	380	т	C	u: -	C1
11 121	21-1	- 3 to 1'	ASI	1.11.1	1 1211	V >1 1	A 12	1/24 /	1 . 1 1 1	I VC	213 L	3 V F	251.	TI L C	1117

385					390					395					400
Ser	Met	G]n	Ser	Thr	Cys	Ser	Pro	Glu	Ser	Ser	Glu	Asp	Пe	Thr	Asp
				405					410					415	
Glu	Phe	Leu	Thr	Pro	Asp	Asp	Glu	Tyr	Phe	Tyr	Ser	Ser	Thr	Ala	Gln
			420					425					430		
Glu	Asn	Leu	Ala	Leu	Glu	Thr	Ser	Ser	Pro	He	Glu	Glu	Asp	Phe	Glu
		435					440					445			
Gly	lle	Gln	Gly	Ala	Phe	Ala	Gln	Pro	Gln	Val	Ser	Gly	Glu	Glu	Lys
	450					455					460				
Phe	Gln	Met	Arg	Lys	Ile	Leu	Gly	Lys	Asn	Ala	Glu	He	Leu	Pro	Arg
465					470					475					480
Ser	Gln	Phe	Gln	Pro	Val	Arg	Ser	Thr	Glu	Asp	Glu	Gln	Glu	Glu	Thr
				485					490					495	
Ser	Lys	Glu	Ser	Pro	Lys	Glu	Leu	Lys	Glu	Lys	Asp	He	Ser	Leu	Thr
			500					505					510		
Asp	He	Gln	Asp	Leu	Ser	Ser	He	Ser	Tyr	G]u	Pro	Asp	Ser	Ser	Phe
		515					520					525			
Lys	Glu	Ala	Ser	Cys	Lys	Thr	Pro	Lys	He	Asn	His	Ala	Pro	Thr	Ser
	530					535					540				
Val	Ser	Thr	Pro	Leu	Ser	Pro	Gly	Ser	Val	Ser	Ser	Ala	Ala	Ser	Gln
545					550					555					560
Tyr	Lys	Asp	Cys	Leu	Glu	Ser	He	Thr	Phe	Gln	Val	Lys	Thr	Glu	Phe
				565					570					575	
Ala	Ser	Cys	Trp	Asn	Ser	Gln	Glu	Phe	11e	Gln	Thr	Leu	Ser	Asp	Asp
			580					585					590		
Phe	lle	Ser	Val	Arg	Glu	Arg	Ala	Lys	Lys	Leu	Asp	Ser	Leu	Leu	Thr
		595					600					605			
Ser	Ser	Glu	Thr	Pro	Pro	Ser	Arg	Leu	Thr	Gly	Leu	Lys	Arg	Leu	Ser
	610					615					620				
Ser	Phe	lle	Gly	Ala	Gly	Ser	Pro	Ser	Leu	Val	Lys	Ala	Cys	Asp	Ser
625					630					635					640
Ser	Pro	Pro	His	Ala	Thr	Gln	Arg	Arg	Ser	Leu	Pro	Lys	Va1	Glu	Ala
				645					650					655	
Phe	Ser	Gln	His	His	lle	Asp	Glu	Leu	Pro	Pro	Pro	Ser	Gln	Glu	Leu
			660					665					670		
Leu	Asp	Asp	He	Glu	Leu	Leu	Lvs	Gln	Gln	Gln	Glv	Ser	Ser	Thr	Val

Leu His Glu Asn Thr Ala Ser Asp Gly Gly Gly Thr Ala Asn Asp Gln Arg His Leu Glu Glu Glu Glu Thr Asp Ser Lys Lys Glu Asp Ser Ser Met Leu Leu Ser Lys Glu Thr Glu Asp Leu Gly Glu Asp Thr Glu Arg Ala His Ser Thr Leu Asp Glu Asp Leu Glu Arg Trp Leu Gln Pro Pro Glu Glu Ser Val Glu Leu Gln Asp Leu Pro Lys Gly Ser Glu Arg Glu Thr Asn Ile Lys Asp <210> 3788 <211> 969 <212> PRT <213> Homo sapiens <400> 3788 Met Val Lys Leu Val Leu Leu Ser Ile Val Leu Lys Val Thr Val Pro Lys Leu Ser Asn Tyr Leu Leu Gln Leu Asp Phe Met Pro Ile His Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp Pro Glu Leu Leu Leu Ser Cys Gly Lys Asp Ala Arg Ile Leu Cys Ser Asn Pro Asn Thr Gly Glu Val Leu Tyr Glu Leu Pro Thr Asn Thr Gln Trp Cys Phe Asp lle Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser Ala Ala Ser Phe Asp Gly Arg 11e Ser Val Tyr Ser 11e Met Gly Gly Ser Thr Asp Gly 

Leu Arg Gln Lys Gln Val Asp Lys Leu Ser Ser Phe Gly Asn Leu

		115					120					125			
Asp	Pro	Phe	Gly	Thr	Gly	Gln	Pro	Leu	Pro	Pro	Leu	Gln	lle	Pro	Gln
	130					135					140				
G1n	Thr	Ala	Gln	His	Ser	He	Val	Leu	Pro	Leu	Lys	Lys	Pro	Pro	Lys
145					150					155					160
Trp	He	Arg	Arg	Pro	Val	Gly	Ala	Ser	Phe	Ser	Phe	Gly	Gly	Lys	Leu
				165					170					175	
Val	Thr	Phe	Glu	Asn	Val	Arg	Met	Pro	Ser	His	Gln	Gly	Ala	Glu	Gln
			180					185					190		
Gln	Gln	Gln	Gln	His	His	Val	Phe	Пe	Ser	Gln	Val	Val	Thr	Glu	Lys
		195					200					205			
Glu	Phe	Leu	Ser	Arg	Ser	Asp	Gln	Leu	Gln	Gln	Ala	Val	Gln	Ser	Gln
	210					215					220				
Gly	Phe	lle	Asn	Tyr	Cys	Gln	Lys	Lys	lle	Asp	Ala	Ser	Gln	Thr	Glu
225					230					235					240
Phe	Glu	Lys	Asn	Val	Trp	Ser	Phe	Leu	Lys	Val	Asn	Phe	Glu	Asp	Asp
				245					250					255	
Ser	Arg	Gly	Lys	Tyr	Leu	Glu	Leu	Leu	Gly	Tyr	Arg	Lys	Glu	Asp	Leu
			260					265					270		
Gly	Lys	Lys	His	lle	Lys	Glu	Glu	Lys	Glu	Glu	Ser	Glu	Phe	Leu	Pro
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Ser	Ser	Gly	Gly	Thr	Phe	Asn	lle	Ser	Val	Ser	Gly	Asp	He	Asp	Gly
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Leu	He	Thr	Gln	Ala	Leu	Leu	Thr	Gly	Asn	Phe	Glu	Ser	Ala	Val	Asp
305					310					315					320
Leu	Cys	Leu	His	Asp	Asn	Arg	Met	Ala	Asp	Ala	lle	lle	Leu	Ala	lle
				325					330					335	
Ala	Gly	G] y	Gln	Glu	Leu	Leu	Ala	Arg	Thr	Gln	Lys	Lys	Tyr	Phe	Ala
			340					345					350		
Lys	Ser	Gln	Ser	Lys	lle	Thr	Arg	Leu	He	Thr	Ala	Val	Val	Met	Lys
		355					360					365			
Asn	Trp	Lys	Glu	He	Val	Glu	Ser	Cys	Asp	Leu	Lys	Asn	Trp	Arg	Glu
	370					375					380				
Ala	Leu	Ala	Ala	Val	Leu	Thr	Tyr	Ala	Lys	Pro	Asp	Glu	Phe	Ser	Ala
385					390					395					400
Leu	Cys	Asp	Leu	Leu	Gly	Thr	Arg	Leu	Glu	Asn	Glu	Gly	Asp	Ser	Leu

				405					410					415	
Leu	Gln	Thr	Gln	Ala	Cys	Leu	Cys	Tyr	Ile	Cys	Ala	Gly	Asn	Val	Glu
			420					425					430		
Lys	Leu	Val	Ala	Cys	Trp	Thr	Lys	Ala	Gln	Asp	Gly	Ser	His	Pro	Leu
		435					440					445			
Ser	Leu	Gln	Asp	Leu	11e	Glu	Lys	Val	Val	He	Leu	Arg	Lys	Ala	Va]
	450					455					460				
Gln	Leu	Thr	Gln	Ala	Met	Asp	Thr	Ser	Thr	Val	Gly	Val	Leu	Leu	Ala
465					470					475					480
Ala	Lys	Met	Ser	Gln	Tyr	Ala	Asn	Leu	Leu	Ala	Ala	Gln	Gly	Ser	Ile
				485					490					495	
Ala	Ala	Ala	Leu	Ala	Phe	Leu	Pro	Asp	Asn	Thr	Asn	Gln	Pro	Asn	He
			500					505					510		
Met	Gln	Leu	Arg	Asp	Arg	Leu	Cys	Arg	Ala	Gln	Gly	Glu	Pro	Val	Ala
		515					520					525			
Gly	His	Glu	Ser	Pro	Lys	lle	Pro	Tyr	Glu	Lys	Gln	Gln	Leu	Pro	Lys
	530					535					540				
G1y	Arg	Pro	Gly	Pro	Val	Ala	Gly	His	His	Gln	Met	Pro	Arg	Val	Gln
545					550					555					560
Thr	Gln	Gln	Tyr	Tyr	Pro	His	Val	Arg	Ile	Ala	Pro	Thr	Val	Thr	Thr
				565					570					575	
Trp	Ser	Asn	Lys	Thr	Pro	Thr	Ala	Leu	Pro	Ser	His	Pro	Pro	Ala	Ala
			580					585					590		
Ser	Pro		Asp	Thr	G1n	Gly	Glu	Asn	Pro	Pro	Pro		Gly	Phe	He
		595					600					605	_		
Met	His	Gly	Asn	Val	Asn	Pro	Asn	Ala	Ala	Gly	Gln	Leu	Pro	Thr	Ser
	610									_	620				
	Gly	His	Met	His		Gln	Val	Pro	Pro		Pro	Gln	Pro	Gln	
625		_			630		_			635			_		640
Tyr	Gln	Pro	Ala		Pro	Tyr	Pro	Phe		Thr	Gly	GIy	Ser		Met
_				645				n	650	m	0			655 T	Б
Tyr	Arg	Pro		GIn	Pro	Val	Ala		Pro	lhr	Ser	Asn		lyr	Pro
			660					665					670		
Δ.	T)	D	T	7.7	C	C	A 1	C	C	Т	Т) -	C1.	C1.	C	C1.
ASN	ınr	Pro 675	ıyr	116	ser	ser	Ala 680	ser	ser	ryr	ınr	685	oin	ser	oin
		n r					DAU					UOD			

Leu	Tyr	Ala	Ala	Gln	His	Gln	Ala	Ser	Ser	Pro	Thr	Ser	Ser	Pro	Ala
	690					695					700				
Thr	Ser	Phe	Pro	Pro	Pro	Pro	Ser	Ser	Gly	Ala	Ser	Phe	Gln	His	Gly
705					710					715					720
Gly	Pro	Gly	Ala	Pro	Pro	Ser	Ser	Ser	Ala	Tyr	Ala	Leu	Pro	Pro	Gly
				725					730					735	
Thr	Thr	Gly	Pro	Gln	Asn	G1 y	Trp	Asn	Asp	Pro	Pro	Ala	Leu	Λsn	Arg
			740					745					750		
Val	Pro	Lys	Lys	Lys	Lys	Met	Pro	Glu	Asn	Phe	Met	Pro	Pro	Val	Pro
		755					760					765			
He		Ser	Pro	He	Met		Pro	Leu	Gly	Asp		Gln	Ser	Gln	Met
	770					775					780				
	Gln	Gln	Gln	Pro		Ala	Pro	Val	Pro		Ser	Ser	Gln	Ser	
785			_		790					795					800
Phe	Pro	GIn	Pro		Leu	Pro	Gly	Gly		Pro	Phe	His	Gly		Gln
0.1	Б		<i>a</i> 1	805	m)	0.1		Б	810	C	DI		,	815	
GIn	Pro	Leu		GIn	lhr	Gly	Met		Pro	Ser	Phe	Ser	Lys	Pro	Asn
т1.	C1	C1	820	p., .	C1	۸1	D	825	C1	Λ	ть	DI	830	112.	W - 1
116	Glu	835	Ala	Pro	бту	Ala	840	116	GIY	ASN	Inr	845	Gln	HIS	vai
Cln	Sor		Dro	The	Lve	Lvc		Thr	Lve	Lvc	Dro		Pro	Aan	61
0111	850	Leu	110	1111	Lys	855	116	1111	Lys	LyS	860	116	110	лър	Glu
His		He	Leu	lvs	Thr		Phe	Glu	Asn	Leu		Gln	Arg	Cvs	Leu
865	1.00	110	Bou	Ly 5	870	1112	1110	014	пор	875	110	0.111	.11 8	0,5	880
	Ser	Ala	Thr	Asp		Gln	Thr	Lvs	Arg		Leu	Asp	Asp	Ala	
				885				)	890			****		895	
Lys	Arg	Leu	Glu	Phe	Leu	Tyr	Asp	Lys		Arg	Glu	Gln	Thr		Ser
-			900			•	-	905		Ū			910		
Pro	Thr	11e	Thr	Ser	Gly	Leu	His	Asn	lle	Ala	Arg	Ser	He	Glu	Thr
		915					920					925			
Arg	Asn	Tyr	Ser	Glu	Gly	Leu	Thr	Met	His	Thr	His	lle	Val	Ser	Thr
	930					935					940				
Ser	Asn	Phe	Ser	Glu	Thr	Ser	Ala	Phe	Met	Pro	Val	Leu	Lys	Val	Val
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Leu	Thr	Gln	Ala	Asn	Lys	Leu	Gly	Val							
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<213> Homo sapiens
<400> 3789
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Met Ala Gln His Met Gln Ser His Ala Pro Tyr Lys Trp Asp Tyr Trp
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Pro His Glu Asp Val Arg Ala Glu Cys Arg Phe Val Gly Leu Thr Asn
        35
                             40
                                                  45
Leu Gly Ala Thr Cys Tyr Leu Ala Ser Thr 11e Gln Gln Leu Tyr Met
    50
                         55
                                              60
lle Pro Glu Ala Arg Gln Ala Val Phe Thr Ala Lys Tyr Ser Glu Asp
65
                     70
                                          75
                                                              80
Met Lys His Lys Thr Thr Leu Leu Glu Leu Gln Lys Met Phe Thr Tyr
                 85
                                     90
Leu Met Glu Ser Glu Cys Lys Ala Tyr Asn Pro Arg Pro Phe Cys Lys
                                105
Thr Tyr Thr Met Asp Lys Gln Pro Leu Asn Thr Gly Glu Gln Lys Asp
        115
                            120
                                                 125
Met Thr Glu Phe Phe Thr Asp Leu Ile Thr Lys Ile Glu Glu Met Ser
                        135
                                             140
Pro Glu Leu Lys Asn Thr Val Lys Ser Leu Phe Gly Gly Val lle Thr
                    150
                                        155
                                                             160
145
Asn Asn Val Val Ser Leu Asp Cys Glu His Val Ser Gln Thr Ala Glu
                165
                                    170
Glu Phe Tyr Thr Val Arg Cys Gln Val Ala Asp Met Lys Asn lle Tyr
                                185
                                                     190
Glu Ser Leu Asp Glu Val Thr 11e Lys Asp Thr Leu Glu Gly Asp Asn
        195
                                                 205
                            200
Met Tyr Thr Cys Ser His Cys Gly Lys Lys Val Arg Ala Glu Lys Arg
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	210					215					220				
Ala	Cys	Phe	Lys	Lys	Leu	Pro	Arg	He	Leu	Ser	Phe	Asn	Thr	Met	Arg
225					230					235					240
Tyr	Thr	Phe	Asn	Met	Val	Thr	Met	Met	Lys	Glu	Lys	Val	Asn	Thr	His
				245					250					255	
Phe	Ser	Phe	Pro	Leu	Arg	Leu	Лѕр	Met	Thr	Pro	Tyr	Thr	Glu	Asp	Phe
			260					265					270		
Leu	Met	Gly	Lys	Ser	Glu	Arg	Lys	Glu	Gly	Phe	Lys	Glu	Val	Ser	Asp
		275					280					285			
His	Ser	Lys	Asp	Ser	Glu	Ser	Tyr	Glu	Tyr	Asp	Leu	Ile	Gly	Val	Thr
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Val	His	Thr	Gly	Thr	Ala	Asp	Gly	Gly	His	Tyr	Tyr	Ser	Phe	Ile	Arg
305					310					315					320
Asp	Пе	Val	Asn	Pro	His	Ala	Tyr	Lys	Asn	Asn	Lys	Trp	Tyr	Leu	Phe
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Asn	Asp	Ala	Glu	Val	Lys	Pro	Phe	Asp	Ser	Ala	Gln	Leu	Ala	Ser	Glu
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Lys	Phe	Met	Asp	Phe	Ser	Phe	Glu	Lys	Thr	His	Ser	Ala	Tyr	Met	Leu
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Phe	Tyr	Lys	Arg	Met	Glu	Pro	Glu	Glu	Glu	Asn	Gly	Arg	Glu	Tyr	Lys
385					390					395					400
Phe	Asp	Val	Ser	Ser	Glu	Leu	Leu	Glu	Trp	He	Trp	His	Asp	Asn	Met
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Gln	Phe	Leu	GIn	Asp	Lys	Asn	He	Phe	Glu	His	Thr	Tyr	Phe	Gly	Phe
			420					425					430		
Met	Trp	Gln	Leu	Cys	Ser	Cys	11e	Pro	Ser	Thr	Leu	Pro	Asp	Pro	Lys
		435					440					445			
Ala		Ser	Leu	Met	Thr		Lys	Leu	Ser	Thr		Phe	Va]	Leu	Glu
	450					455					460				
	Phe	He	His	Ser	-	Glu	Lys	Pro	Thr		Leu	Gln	Trp	lle	
465					470					475					480
Leu	Leu	Thr	Lys	*	Phe	Asn	Asn	Ser		Ala	Ala	Cys	Glu	Trp	Phe
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Leu	Asp	Arg	Met	Ala	Asp	Asp	Asp	Trp	Trp	Pro	Met	Gln	He	Leu	Пe

			500					505					510		
Lys	Cys	Pro	Asn	Gln	Пe	Val	Arg	Gln	Met	Phe	G1n	Arg	Leu	Cys	He
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His	Val	He	Gln	Arg	Leu	Arg	Pro	Val	His	Ala	His	Leu	Tyr	Leu	G1n
	530					535					540				
Pro	Gly	Met	Glu	Asp	Gly	Ser	Asp	Asp	Met	Asp	Thr	Ser	Val	Glu	Asp
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11e	Gly	G1 y	Arg	Ser	Cys	Val	Thr	Arg	Phe	Val	Arg	Thr	Leu	Leu	Leu
				565					570					575	
Ile	Met	Glu	His	Gly	Val	Lys	Pro	His	Ser	Lys	His	Leu	Thr	Glu	Tyr
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Phe	Ala	Phe	Leu	Tyr	Glu	Phe	Ala	Lys	Met	Gly	Glu	Glu	Glu	Ser	Gln
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Phe	Leu	Leu	Ser	Leu	GIn	Ala	He	Ser	Thr	Met	Val	His	Phe	Tyr	Met
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Glu	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	lle	Leu	Ser	Leu	Ala	Glu
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Glu	Lys	Tyr	Arg	Pro	Ala	Ala	Leu	Glu	Lys	Met	lle	Ala	Leu	Val	Ala
			660					665					670		
Leu	Leu	Val	Glu	Gln	Ser	Λrg	Ser	Glu	Arg	His	Leu	Thr	Leu	Ser	Gln
		675					680					685			
Thr	Asp	Met	Ala	Ala	Leu	Thr	Gly	Gly	Lys	Gly	Phe	Pro	Phe	Leu	Phe
	690					695					700				
Gln	His	He	Arg	Asp	Gly	He	Asn	He	Arg	Gln	Thr	Cys	Asn	Leu	He
705					710					715					720
Phe	Ser	Leu	Cys		Tyr	Asn	Asn	Arg	Leu	Ala	Glu	His	lle	Val	Ser
				725					730					735	
Met	Leu	Phe		Ser	lle	Ala	Lys			Pro	Glu	Ala		Asn	Pro
			740					745.					750		
Phe	Phe		Leu	Leu	Thr	Met	Leu	Met	Glu	Phe	Ala		Gly	Pro	Pro
		755					760					765			
Gly		Pro	Pro	Phe	Ala	Ser	Tyr	He	Leu	Gln		He	Trp	Glu	Val
	770					775				_	780				
110	Cilm	Tyr	Aen	Pro	Ser	Gla	Cve	Lon	Acn	Trn	Leu	Ala	Val	Gln	lhr

785					790					795					800
Pro	Arg	Asn	Lys	Leu	Ala	His	Ser	Trp	Val	Leu	Gln	Asn	Met	Glu	Asn
				805					810					815	
Trp	Val	Glu	Arg	Phe	Leu	Leu	Ala	His	Asn	Tyr	Pro	Arg	Val	Arg	Thr
			820					825					830		
Ser	Ala	Ala	Tyr	Leu	Leu	Val	Ser	Leu	He	Pro	Ser	Asn	Ser	Phe	Arg
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Gln	Met	Phe	Arg	Ser	Thr	Arg	Ser	Leu	His	lle	Pro	Thr	Arg	Asp	Leu
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865					870					875					880
Leu	Leu	Gly	Leu	Leu	Ser	Arg	Ala	Lys	Leu	Tyr	Va]	Asp	Ala	Ala	Va]
				885					890					895	
His	Gly	Thr	Thr	Lys	Leu	Val	Pro	Tyr	Phe	Ser	Phe	Met	Thr	Tyr	Cys
			900					905					910		
Leu	11e	Ser	Lys	Thr	Glu	Lys	Leu	Met	Phe	Ser	Thr	Tyr	Phe	Met	Asp
		915					920					925			
Leu	Trp	Asn	Leu	Phe	Gln	Pro	Lys	Leu	Ser	Glu	Pro	Ala	Ile	Ala	Thr
	930					935					940				
Asn	His	Asn	Lys	Gln	Ala	Leu	Leu	Ser	Phe	Trp	Tyr	Asn	Val	Cys	Ala
945					950					955					960
Asp	Cys	Pro	Glu	Asn	He	Arg	Leu	He	Val	G1n	Asn	Pro	Va]	Val	Thr
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Lys	Asn	Пе	Ala	Phe	Asn	Tyr	Пе	Leu	Ala	Asp	His	Asp	Asp	Gln	Asp
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Val	Val	Leu	Phe	Asn	Arg	Gly	Met	Leu	Pro	Ala	Tyr	Tyr	Gly	11e	Leu
		995					1000					1005			
Arg	Leu	Cys	Cys	Glu	Gln	Ser	Pro	Ala	Phe	Thr	Arg	Gln	Leu	Ala	Ser
]	1010				1	1015					1020				
His	Gln	Asn	Ile	Gln	Trp	Ala	Phe	Lys	Asn	Leu	Thr	Pro	His	Ala	Ser
1025	5				1030					1035					1040
Gln	Tyr	Pro	Gly	Ala	Val	Glu	Glu	Leu	Phe	Asn	Leu	Met	Gln	Leu	Phe
				1045					1050					1055	
He	Ala	Gln	Arg	Pro	Asp	Met	Arg	Glu	Glu	Ġlu	Leu	Glu	Asp	Пе	Lys
			1060					1065					1070		
Gln	Phe	Lvs	Lvs	Thr	Thr	He	Ser	Cvs	Tyr	Len	Arg	Cvs	Leu	Asn	Glv

1	075				J	080				1	085			
Arg Ser	Cys	Trp	Thr	Thr	Leu	Пе	Ser	Ala	Phe	Arg	He	Leu	Leu	Glu
1090				1	095				]	100				
Ser Asp	Glu	Asp	Arg	Leu	Leu	Val	Val	Phe	Asn	Arg	Gly	Leu	He	Leu
1105			1	110				1	1115				1	120
Met Thr	Glu	Ser	Phe	Asn	Thr	Leu	His	Met	Met	Tyr	His	Glu	Ala	Thr
		ļ	1125				]	1130				]	1135	
Ala Cys	His	Val	Thr	Gly	Asp	Leu	Val	Glu	Leu	Leu	Ser	lle	Phe	Leu
	Ī	1140				]	1145					1150		
Ser Val	Leu	Lys	Ser	Thr	Arg	Pro	Tyr	Leu	Gln	Arg	Lys	Asp	Val	Lys
1	155				]	1160					1165			
Gln Ala	Leu	He	Gln	Trp	Gln	Glu	Arg	lle	Glu	Phe	Ala	His	Lys	Leu
1170				]	1175					180				
Leu Thr	Leu	Leu	Asn	Ser	Tyr	Ser	Pro	Pro	Glu	Leu	Arg	Asn	Ala	Cys
1185			]	1190					1195				]	1200
Ile Asp	Val	Leu	Lys	Glu	Leu	Val	Leu	Leu	Ser	Pro	His	Asp	Phe	Leu
			1205					1210					1215	
His Thr	Leu	Val	Pro	Phe	Leu	Gln	His	Asn	His	Cys	Thr	Tyr	His	His
		1220					1225					1230		
Ser Asn	He	Pro	Met	Ser	Leu	Gly	Pro	Tyr	Phe	Pro	Cys	Arg	Glu	Asn
1	1235				,	1240					1245			
Ile Lys	Leu	lle	Gly	Gly	Lys	Ser	Asn	lle	Arg	Pro	Pro	Arg	Pro	Glu
1250					1255					1260				
Leu Asn	Met	Cys	Leu	Leu	Pro	Thr	Met	Val	Glu	Thr	Ser	Lys	Gly	Lys
1265				1270					1275					1280
Asp Asp	Val	Tyr	Asp	Arg	Met	Leu	Leu	Asp	Tyr	Phe	Phe	Ser	Tyr	His
			1285					1290					1295	
Gln Phe	lle	His	Leu	Leu	Cys	Arg	Val	Ala	He	Asn	Cys	Glu	Lys	Phe
		1300					1305					1310		
Thr Glu	Thr	Leu	Val	Lys	Leu	Ser	Val	Leu	Val	Ala	Tyr	Glu	Gly	Leu
1	1315					1320					1325			
Pro Leu	His	Leu	Ala	Leu	Phe	Pro	Lys	Leu	Trp	Thr	Glu	Leu	Cys	G]n
1330					1335					1340				
Thr Gln	Ser	Ala	Met	Ser	Lys	Asn	Cys	Пe	Lys	Leu	Leu	Cys	Glu	Asp
1345				1350					1355					1360
			0.1	T.	* *			11a				C 1		TI

			. ]	365				1	370				j	1375	
Phe	Leu	Asn	Asn	Asn	He	Val	Tyr	Thr	Phe	Met	Thr	His	Phe	Leu	Leu
		1	380				1	385				]	390		
Lys	Val	Gln	Ser	Gln	Val	Phe	Ser	Glu	Ala	Asn	Cys	Ala	Asn	Leu	lle
	]	1395				]	1400				]	1405	٠		
Ser	Thr	Leu	He	Thr	Asn	Leu	lle	Ser	Gln	Tyr	Gln	Asn	Leu	Gln	Ser
]	1410				]	1415				1	1420				
Asp	Phe	Ser	Asn	Arg	Val	Glu	He	Ser	Lys	Ala	Ser	Ala	Ser	Leu	Asn
1425	5			]	1430				]	1435				]	440
Gly	Asp	Leu	Arg	Ala	Leu	Ala	Leu	Leu	Leu	Ser	Val	His	Thr	Pro	Lys
			]	1445				]	1450				]	1455	
Gln	Leu			Ala	Leu	He			Leu	Gln	Glu	Leu	Leu	Ser	Lys
			1460					1465					1470		
Cys			Cys	Leu	Gln			Asn	Ser	Leu			Gln	Glu	Ala
		1475				]	1480				]	1485			
Z910	ر ۱۱ ۲	700													
	0> 3′ 1> 19														
	2> PI														
			sapie	ens											
\	,, ,,	Silio .	зарт												
<400	)> 3	790													
Met	Asn	Glu	Phe	Phe	Ser	Val	Asp	Asp	Asn	Asn	Glu	Glu	Glu	Glu	Asp
1				5					10					15	
Val	Glu	Met	Lys	Glu	Asp	Ser	Asp	Glu	Asn	Gly	Pro	Glu	Glu	Lys	Gln
			20					25					30		
Ser	Val	Glu	Glu	Met	Glu	Glu	Gln	Ser	Gln	Asp	Ala	Asp	Gly	Val	Asn
		35					40					45			
Thr	Val	Thr	Val	Pro	Gly	Pro	Ala	Ser	Glu	Glu	Ala	Val	Glu	Asp	Cys
	50					55					60				
Lys	Asp	Glu	Asp	Phe	Ala	Lys	Asp	Glu	Asn	lle	Thr	Lys	Gly	Gly	Glu
65					70					75					80
Val	Thr	Asp	His	Ser	Val	Arg	Asp	GIn	Asp	His	Pro	Asp	Gly	Gln	Glu

Asn Asp Ser Thr Lys Asn Glu Ile Lys Ile Glu Thr Glu Ser Gln Ser 105 Ser Tyr Met Glu Thr Glu Glu Leu Ser Ser Asn Gln Glu Asp Ala Val 115 120 125 Ile Val Glu Gln Pro Glu Val Ile Pro Leu Thr Glu Asp Gln Glu Glu 135 Lys Glu Gly Glu Lys Ala Pro Gly Glu Asp Thr Pro Arg Met Pro Gly 150 155 Lys Ser Glu Gly Ser Ser Asp Leu Glu Asn Thr Pro Gly Pro Asp Ala 170 175 165 Gly Ala Gln Asp Glu Ala Lys Glu Gln Arg Asn Gly Thr Lys 180 190 185

<210> 3791

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3791

Met Gly Phe Leu Pro Asp Tyr Phe Leu Val Phe Ser Leu Thr Glu Cys

1 5 10 15

His Lys Gly Leu Gly Leu Trp Phe Pro Thr Gly Lys Glu Thr Ser Asn 20 25 30

Phe Ala Ser Leu Ser Ser Phe Tyr Met Thr Met Gly Gly Ser Cys Ser
35 40 45

Tyr Gly Ser 11e Ser Phe Pro Pro Lys Ala Tyr Glu Thr Gly Cys Asn
50 55 60

Leu Asn Pro Tyr Phe Ile Lys Gly Glu Glu Met Ser Lys Ser Pro Glu
65 70 75 80

Ile Val Gly Lys Ser Ile Ile Arg Thr Arg Asn Gly Val Phe Leu Leu 85 90 95

Leu Ile Ser Arg Gly Glu Gly

<210> 3792

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<211> 564
<212> PRT
<213> Homo sapiens
<400> 3792
Met Pro Asn Arg Thr Arg Arg Pro Gly Thr Gln Met Val Arg Thr Phe
1
Cys Pro Pro Pro Leu Pro Lys Pro Ser Ser Thr Thr Pro Thr Pro Leu
             20
                                 25
Val Ser Glu Thr Gly Gly Asn Ser Pro Ser Asp Lys Val Asp Asn Glu
                             40
Leu Lys Asn Leu Glu His Leu Ser Ser Phe Ser Ser Asp Glu Asp Asp
     50
                         55
                                              60
Pro Gly Tyr Ser Gln Asp Ala Tyr Lys Ser Val Ser Thr Pro Leu Thr
                     70
                                          75
Thr Leu Asp Ala Thr Ser Asp Lys Lys Lys Lys Thr Glu Ala Leu Gln
                                     90
Val Ala Thr Thr Ser Pro Thr Ala Asn Thr Thr Gly Thr Ala Thr Thr
            100
                                 105
Ser Ser Thr Thr Val Gly Ala Val Lys Gln Glu Pro Leu His Ser Thr
                            120
Ser Tyr Ala Val Asn Ile Leu Glu Asn Ile Ser Ser Ser Glu Ser Ser
                        135
                                             140
    130
Lys Pro 11e Glu Leu Asp Gly Leu Pro Ser Asp Gln Phe Ala Lys Gly
145
                    150
                                         155
Gln Asp Thr Val Ala Ile Glu Gly Phe Thr Asp Glu Glu Asp Thr Glu
                165
                                     170
Ser Gly Gly Glu Gly Gln Tyr Arg Glu Arg Asp Glu Phe Val Val Lys
                                                     190
            180
                                 185
Ile Glu Asp Ile Glu Thr Phe Lys Glu Ala Leu Lys Thr Gly Lys Glu
                            200
                                                 205
Pro Pro Ala Ile Trp Lys Val Gln Lys Ala Leu Leu Gln Lys Phe Val
    210
                        215
                                             220
Pro Glu Ile Arg Asp Gly Gln Arg Glu Phe Ala Ala Thr Asn Ser Tyr
```

Leu	G1 y	Tyr	Phe	Gly	Asp	Ala	Lys	Ser	Lys	Tyr	Lys	Arg	Ile	Tyr	Val
				245					250					255	
Lys	Phe	He	Glu	Asn	Ala	Asn	Lys	Lys	Glu	Tyr	Val	Arg	Val	Cys	Ser
			260					265					270		
Lys	Lys	Pro	Arg	Asn	Lys	Pro	Ser	Gln	Thr	Пе	Arg	Thr	Val	Gln	Ala
		275					280					285			
Lys	Pro	Ser	Ser	Ser	Ser	Lys	Thr	Ser	Asp	Pro	Leu	Λla	Ser	Lys	Thr
	290					295					300				
Thr	Thr	Thr	Lys	Ala	Pro	Ser	Val	Lys	Pro	Lys	Val	Lys	Gln	Pro	Lys
305					310					315					320
Val	Lys	Ala	Glu	Pro	Pro	Pro	Lys	Lys	Arg	Lys	Lys	Trp	Lys	Glu	Glu
				325					330					335	
Phe	Ser	Ser	Ser	Gln	Ser	Asp	Ser	Ser	Pro	Glu	lle	His	Thr	Ser	Ser
			340					345					350		
Ser	Asp	Asp	Glu	Glu	Phe	Glu	Pro	Pro	Ala	Pro	Phe	Val	Thr	Arg	Phe
		355					360					365			
Leu	Asn	Thr	Arg	Ala	Met	Lys	Glu	Thr	Phe	Lys	Ser	Tyr	Met	Glu	Leu
	370					375					380				
Leu	Val	Ser	He	Ala	Leu	Asp	Pro	Asp	Thr	Met	Gln	Ala	Leu	Glu	Lys
385					390					395					400
Ser	Asn	Asp	Glu	Leu	Leu	Leu	Pro	His	Met	Lys	Lys	He	Asp	Gly	Met
				405					410					415	
Leu	Asn	Asp	Asn	Arg	Lys	Arg	Leu	Leu	Leu	Asn	Leu	His	Leu	Asp	Gln
			420					425					430		
Ser	Phe	Lys	Asn	Ala	Leu	Glu	Ser	Phe	Pro	Glu	Leu	Thr	lle	lle	Thr
		435					440					445			
Arg	Asp	Ser	Lys	Ala	Lys	Ser	Gly	Gly	Thr	Ala	He	Ser	Lys	lle	Lys
	450					455					460				
Met	Asn	Gly	Lys	Ala	Tyr	Asn	Lys	Lys	Thr	Leu	Arg	Thr	Ser	Lys	Thr
465	•				470					475					480
Thr	Thr	Lys	Ser	Ala	Gln	Glu	Phe	Ala	Val	Asp	Pro	Glu	Lys	He	Gln
				485					490					495	
Leu	Tyr	Ser	Leu	Tyr	His	Ser	Leu	His	His	Tyr	Lys	Tyr	His	Va]	Tyr
			500					505					510		
Leu	He	Cys	Lys	Asp	Glu	He	Ser	Ser	Val	Gln	Lys	Lys	Asn	Glu	Asp
		515					520					525			

Leu Gly Gln Glu Glu Ile Val Gln Leu Cys Met Lys Asn Val Lys Trp 530 
Val Glu Asp Leu Phe Glu Lys Phe Gly Glu Leu Leu Asn His Val Gln 545 
Gln Lys Cys Ser

<210> 3793

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3793

Met Arg Glu Leu Arg His Arg Ala Arg Pro Ser Gly Phe Asn Arg Trp

1 5 10 15

Met Gly Ala Ala Ser Gln Ser Pro Leu Ser Ser Ala Ser Pro Ser Pro
20 25 30

Gly His Thr Pro Ala Pro Thr Thr Ser Pro Thr Gly Tyr Arg Ala Glu 35 40 45

Asp Pro Pro Ala Gly Arg Ala Ala Gln Arg Pro Gln His Thr His Pro 50 55 60

Thr Leu Gln Gly Leu Thr Leu Pro Ala Gln Leu Asn Ala Thr Ser Ser 65 70 75 80

Leu Lys Leu Ser Pro Ser Pro Pro Pro Thr Arg Ala Ala Ser Gly Pro
85 90 95

Arg Thr Val Pro Gly Gly Ala Pro Arg Gln Asp Gln Thr Tyr Pro Ser

Ser Lys Ser Pro Ser Leu Leu Thr Ala Gln Met Leu Pro Gly His \$115\$ \$120\$ \$125\$

<210> 3794

<211> 711

<212> PRT

<213> Homo sapiens

<400	)> 37	794													
Met	Ser	Ser	Val	Gln	Ser	Gln	Gln	Glu	Gln	Leu	Ser	Gln	Ser	Asp	Pro
1				5					10					15	
Ser	Pro	Ser	Pro	Asn	Ser	Cys	Ser	Ser	Phe	Glu	Leu	11e	Asp	Met	Asp
			20					25					30		
Ala	Gly	Ser	Leu	Tyr	Glu	Pro	Val	Ser	Pro	His	Trp	Phe	Tyr	Cys	Lys
		35					40					45			
lle	Ile	Asp	Ser	Lys	Glu	Thr	Trp	He	Pro	Phe	Asn	Ser	Glu	Asp	Ser
	50					55					60				
Gln	Gln	Leu	Glu	Glu	Ala	Tyr	Ser	Ser	Gly	Lys	Gly	Cys	Asn	Gly	Arg
65					70					75					80
Val	Val	Pro	Thr	Asp	Gly	Gly	Arg	Tyr	Asp	Val	His	Leu	Gly	Glu	Arg
				85					90					95	
Met	Arg	Tyr	Ala	Val	Tyr	Trp	Asp	Glu	Leu	Ala	Ser	Glu	Val	Arg	Arg
			100					105					110		
Cys	Thr	Trp	Phe	Tyr	Lys	Gly	Asp	Lys	Asp	Asn	Lys	Tyr	Val	Pro	Tyr
		115					120					125			
Ser		Ser	Phe	Ser	Gln		Leu	Glu	Glu	Thr		Met	Leu	Ala	Val
	130			_		135					140				
	Leu	Asp	Glu	Trp		Lys	Lys	Leu	Glu		Pro	Asn	Arg	Glu	
145	~ ~				150	-				155		23	•~		160
He	He	Leu	His		Pro	Lys	Leu	Met		His	Tyr	GIn	Pro		Ala
61	C			165 T	<b>C</b> 1	C	TI	D	170	C1	61	61		175	
GTy	Ser	Asp		Trp	Gly	Ser	lhr	Pro	lhr	Glu	GIn	GTy		Pro	Arg
ть	V - 1	1	180	C1	W - 1	C1	Λ	185	C	V - 1	Λ	11.	190	C	C1
Inr	vai		Arg	GIŸ	vai	GIU		He	Ser	vai	Asp		HIS	Cys	GIy
C1	Dno	195	C1 <sub>10</sub>	11.	Aon	ш	200		Dha	Vo.1	Vo.1	205	C1	71.	C1
GIU	210	Leu	GIII	.11e	ASP	215	Leu	Val	rne	vaı	220	nis	GIY	116	GIY
Dro		Cvc	Acn	Lou	Ara		Ara	Ser	110	Val		Cvc	Val	Acn	Acn
225	MIA	Cys	лър	Leu	230	THE	AI g	261	116	235	OIH	Cys	vai	ASII	240
	Ara	Ser	Val	Ser		Asn	Leu	Leu	Gln		Hic	Phe	Lve	Lve	
1 110	8	501		245	Lea	71011	Lea	150.0	250	1	111.5	1110	Lys	255	7110
G]n	Glu	Asn	Gln		]]e	Glv	Arø	Va]		Phe	Leu	Pro	Val		Trn
			260				0	265					270		1

His	Ser		Leu	His	Ser	Thr		Val	Asp	Val	Asp		G1n	Arg	Ile
TI.	•	275 D	С.	т 1		Α.	280	Α.	,,,	DI.	TI	285		T)	7.7
ınr	290	rro	ser	11e	Asn	Arg 295	Leu	Arg	ніѕ	Pne	300	Asn	Asp	Inr	116
Leu	Asp	Val	Phe	Phe	Tyr	Asn	Ser	Pro	Thr	Tyr	Cys	Gln	Thr	He	Val
305					310					315					320
Asp	Thr	Val	Ala	Ser	Glu	Met	Asn	Arg	Ile	Tyr	Thr	Leu	Phe	Leu	Gln
				325					330					335	
Arg	Asn	Pro	Asp		Lvs	Gly	Glv	Val		He	Ala	Glv	His		Leu
Ü			340		J	J	,	345				Í	350		
Gly	Ser	Leu	He	Leu	Phe	Asp	11e	Leu	Thr	Asn	Gln	Lys	Asp	Ser	Leu
		355					360					365			
Gly	Asp	He	Asp	Ser	Glu	Lys	Asp	Ser	Leu	Asn	He	Va]	Met	Asp	Gln
	370					375					380				
Gly	Asp	Thr	Pro	Thr	Leu	Glu	Glu	Asp	Leu	Lys	Lys	Leu	G1n	Leu	Ser
385					390					395					400
Glu	Phe	Phe	Asp	He	Phe	Glu	Lys	Glu	Lys	Val	Asp	Lys	Glu	Ala	Leu
				405					410					415	
Ala	Leu	Cys	Thr	Asp	Arg	Asp	Leu	Gln	Glu	lle	Gly	Пe	Pro	Leu	Gly
			420					425					430		
$\operatorname{Pro}$	Arg	Lys	Lys	He	Leu	Asn	Tyr	Phe	Ser	Thr	Arg	Lys	Asn	Ser	Met
		435					440					445			
Gly	lle	Lys	Arg	Pro	Ala	Pro	G1n	Pro	Ala	Ser	Gly	Ala	Asn	Пe	Pro
	450					455					460				
Lys	Glu	Ser	Glu	Phe	Cys	Ser	Ser	Ser	Asn	Thr	Arg	Asn	G1 y	Asp	Tyr
465					470					475					480
Leu	Asp	Val	Gly	He	G1 y	Gln	Val	Ser	Val	Lys	Tyr	Pro	Arg	Leu	11e
				485					490					495	
Tyr	Lys	Pro	Glu	He	Phe	Phe	Ala	Phe	Gly	Ser	Pro	lle	Gly	Met	Phe
			500					505					510		
Leu	Thr	Val	Arg	Gly	Leu	Lys	Arg	He	Asp	Pro	Asn	Tyr	Arg	Phe	Pro
		515					520					525			
Thr	Cys	Lys	Gly	Phe	Phe	Asn	lle	Tyr	His	Pro	Phe	Asp	Pro	Val	Ala
	530					535					540				
Tyr	Arg	He	Glu	Pro	Met	Val	Val	Pro	Gly	Val	Glu	Phe	Glu	Pro	Met

545					550					555					560
Leu	lle	Pro	His	His	Lys	Gly	Arg	Lys	Arg	Met	His	Leu	Glu	Leu	Arg
				565					570					575	
Glu	G1 y	Leu	Thr	Arg	Met	Ser	Met	Asp	Leu	Lys	Asn	Asn	Leu	Leu	Gly
			580					585					590		
Ser	Leu	Arg	Met	Ala	Trp	Lys	Ser	Phe	Thr	Arg	Ala	Pro	Tyr	Pro	Ala
		595					600					605			
Leu	G1n	Ala	Ser	Glu	Thr	Pro	Glu	Glu	Thr	Glu	Ala	Glu	Pro	Glu	Ser
	610					615					620				
Thr	Ser	Glu	Lys	Pro	Ser	Asp	Val	Asn	Thr	Glu	Glu	Thr	Ser	Val	Ala
625					630					635					640
Val	Lys	Glu	Glu	Val	Leu	Pro	He	Asn	Val	Gly	Met	Leu	Asn	Gly	Gly
				645					650					655	
Gln	Arg	He	Asp	Tyr	Val	Leu	Gln	Glu	Lys	Pro	Пе	Glu	Ser	Phe	Asn
			660					665					670		
Glu	Tyr	Leu	Phe	Ala	Leu	Gln	Ser	His	Leu	Cys	Tyr	Trp	Glu	Ser	Glu
		675					680					685			
Asp	Thr	Val	Leu	Leu	Val	Leu	Lys	Glu	lle	Tyr	Gln	Thr	Gln	Gly	Ile
	690					695					700				
Phe	Leu	Asp	Gln	Pro	Leu	Gln									
705					710										

<210> 3795

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3795

Met Ser Arg Val Met Pro Ala Trp Phe Leu Phe His Ala Trp Arg Ile

1 5 10 15

Cys Ile Gly Glu Leu Arg Thr Ala Ala Lys Val Ser Gly Gln Gly Trp

20 25 30

Trp Ala Gln Trp Ala Ala Cys Gly Arg Cys Leu Ala Met Val Arg Arg

35 40 45

Cys Glu Ser Pro Pro Gly Ser Arg Ala Val Gly Gly Gln Leu Arg His

50 55 60 Gly Ser His Pro Gln Pro Ser Glu Trp Leu Pro Cys Ser Thr Gln Gly 75 70 Gly Lys Arg Glu Arg Pro Met Pro Ala Val Ser Ser Val Leu Cys Leu 85 90 His Cys Cys Phe Pro Ser Phe Leu Cys Arg Ser Trp Ser Ser Gln Arg 100 105 Gln His Lys Ala Gly Glu Arg Gly Gly Gly Gly Lys Met Glu Glu 115 120 125 Pro Thr Leu Leu Pro Pro Arg Leu Arg Glu Arg Asn Ile Ser Leu Asp 135 140 Trp Lys Val Pro Ile Arg Gln Tyr 150

<210> 3796

<211> 890

<212> PRT

<213> Homo sapiens

<400> 3796

Met Asp Phe Gly Thr Val Arg Glu Thr Leu Asp Ala Gly Asn Tyr Asp

1 5 10 15

Ser Pro Leu Glu Phe Cys Lys Asp Ile Arg Leu Ile Phe Ser Asn Ala 20 25 30

Lys Ala Tyr Thr Pro Asn Lys Arg Ser Lys lle Tyr Ser Met Thr Leu
35 40 45

Arg Leu Ser Ala Leu Phe Glu Glu Lys Met Lys Lys Ile Ser Ser Asp 50 55 60

Phe Lys 11e Gly Gln Lys Phe Asn Glu Lys Leu Arg Arg Ser Gln Arg
65 70 75 80

Phe Lys Gln Arg Gln Asn Cys Lys Gly Asp Ser Gln Pro Asn Lys Ser 85 90 95

Ile Arg Asn Leu Lys Pro Lys Arg Leu Lys Ser Gln Thr Lys Ile 11e
100 105 110

Pro Glu Leu Val Gly Ser Pro Thr Gln Ser Thr Ser Ser Arg Thr Ala

		115					120					125			
Tyr	Leu	Gly	Thr	His	Lys	Thr	Ser	Ala	Gly	lle	Ser	Ser	Gly	Val	Thr
	130					135					140				
Ser	Gly	Asp	Ser	Ser	Asp	Ser	Ala	Glu	Ser	Ser	Glu	Arg	Arg	Lys	Arg
145					150					155					160
Asn	Arg	Pro	lle	Thr	Asn	Gly	Ser	Thr	Leu	Ser	Glu	Ser	Glu	Val	Glu
				165					170					175	
Asp	Ser	Leu	Ala	Thr	Ser	Leu	Ser	Ser	Ser	Ala	Ser	Ser	Ser	Ser	Glu
			180					185					190		
Glu	Ser	Lys	Glu	Ser	Ser	Arg	Ala	Arg	Glu	Ser	Ser	Ser	Arg	Ser	Gly
		195					200					205			
Leu	Ser	Arg	Ser	Ser	Asn	Leu	Arg	Val	Thr	Arg	Thr	Arg	Ala	Ala	Gln
	210					215					220				
Arg	Lys	Thr	Gly	Pro	Val	Ser	Leu	Ala	Asn	Gly	Cys	Gly	Arg	Lys	Ala
225					230					235					240
Thr	Arg	Lys	Arg	Val	Tyr	Leu	Ser	Asp	Ser	Asp	Asn	Asn	Ser	Leu	Glu
				245					250					255	
Thr	Gly	Glu	lle	Leu	Lys	Ala	Arg	Ala	Gly	Asn	Asn	Arg	Lys	Val	Leu
			260					265					270		
Arg	Lys	Cys	Ala	Ala	Val	Ala	Ala	Asn	Lys	He	Lys	Leu	Met	Ser	Asp
		275					280					285			
Val	Glu	Glu	Asn	Ser	Ser	Ser	Glu	Ser	Val	Cys	Ser	Gly	Arg	Lys	Leu
	290					295					300				
Pro	His	Arg	Asn	Ala	Ser	Ala	Val	Ala	Arg	Lys	Lys	Leu	Leu	His	Asn
305					310					315					320
Ser	Glu	Asp	Glu	Gln	Ser	Leu	Lys	Ser	Glu	He	Glu	Glu	Glu	Glu	Leu
				325					330					335	
Lys	Asp	Glu	Asn	Gln	Leu	Leu	Pro	Val	Ser	Ser	Ser	His	Thr	Ala	Gln
			340					345					350		
Ser	Asn	Val	Asp	Glu	Ser	Glu	Asn	Arg	Asp	Ser	Glu	Ser	Glu	Ser	Asp
		355					360					365			
Leu	Arg	Va]	Ala	Arg	Lys	Asn	Trp	His	Ala	Asn	Gly	Tyr	Lys	Ser	His
	370					375					380				
Thr	Pro	Ala	Pro	Ser	Lys	Thr	Lys	Phe	Leu	Lys	lle	Glu	Ser	Ser	Glu
385					390					395					400
C1u	Acn	San	1	San	uio	Acn	Can	Aan	uic	Ala	Cuc	Acn	Ara	Thr	Ala

				405					410					415	
Gly	Pro	Ser	Thr	Ser	Val	Gln	Lys	Leu	Lys	Ala	Glu	Ser	He	Ser	Glu
			420					425					430		
Glu	Ala	Asp	Ser	Glu	Pro	Gly	Arg	Ser	Gly	Gly	Arg	Lys	Tyr	Asn	Thr
		435					440					445			
Phe	His	Lys	Asn	Ala	Ser	Phe	Phe	Lys	Lys	Thr	Lys	He	Leu	Ser	Asp
	450					455					460				
Ser	Glu	Asp	Ser	Glu	Ser	Glu	Glu	Gln	Asp	Arg	Glu	Asp	Gly	Lys	Cys
465					470					475					480
His	Lys	Met	Glu	Met	Asn	Pro	He	Ser	Gly	Asn	Leu	Asn	Cys	Asp	Pro
				485					490					495	
He	Ala	Met	Ser	Gln	Cys	Ser	Ser	Asp	His	Gly	Cys	Glu	Thr	Asp	Leu
			500					505					510		
Asp	Ser	Asp	Asp	Asp	Lys	Пе	Glu	Lys	Pro	Asn	Asn	Phe	Met	Lys	Asp
		515					520					525			
Ser	Ala	Ser	Gln	Asp	Asn	Gly	Leu	Ser	Arg	Lys	He	Ser	Arg	Lys	Arg
	530					535					540				
Val	Cys	Ser	Ser	Asp	Ser	Asp	Ser	Ser	Leu	Gln	Val	Val	Lys	Lys	Ser
545					550					555					560
Ser	Lys	Ala	Arg	Thr	Gly	Leu	Leu	Arg	He	Thr	Arg	Arg	Cys	Ala	Ala
				565					570					575	
Thr	Ala	Ala	Asn	Lys	He	Lys	Leu	Met	Ser	Asp	Val	Glu	Asp	Val	Ser
			580					585					590		
Leu	G]u		Va]	His	Thr	Arg		Lys	Asn	Gly	Arg		Lys	Pro	Leu
		595					600					605			
His	Leu	Ala	Cys	Thr	Thr		Lys	Lys	Lys	Leu	Ser	Asp	Cys	Glu	Gly
_	610		_			615					620				
	Val	His	Cys	Glu		Pro	Ser	Glu	Gln		Ala	Cys	Glu	GI y	
625					630		0.7		m)	635				0.1	640
Pro	Pro	Asp	Pro		5er	Glu	Gly	Ser		Lys	Val	Leu	Ser		Ala
,		61		645		C	61		650			C	C1	655	
Leu	Asn	Gly		Ser	Asp	Ser	Glu		Met	Leu	Asn	Ser		HIS	Lys
11.7	۸.	11.2	660	۸	11			665		A 1	D	C	670	Α.	
H1\$	Arg		ını	Asn	116	шѕ		116	Asp	Ala	Pro		Lys	Arg	Lys
C	C	675	V I	ть	C	C	680	C1.	Λ	C	lve	685	117 -	11.	D
Ser	Ser	Ser	val	Int	Ser	201	1 1 W	11111	ASD	Ser	IVC	Ser	H1 C	116	ピと

Gly Ser Glu Thr Asp Arg Thr Phe Ser Ser Glu Ser Thr Leu Ala Gln Lys Ala Thr Ala Glu Asn Asn Phe Glu Val Glu Leu Asn Tyr Gly Leu Arg Arg Trp Asn Gly Arg Arg Leu Arg Thr Tyr Gly Lys Ala Pro Phe Ser Lys Thr Lys Val Ile His Asp Ser Gln Glu Thr Ala Glu Lys Glu Val Lys Arg Lys Arg Ser His Pro Glu Leu Glu Asn Val Lys Ile Ser Glu Thr Thr Gly Asn Ser Lys Phe Arg Pro Asp Thr Ser Ser Lys Ser Ser Asp Leu Gly Ser Val Thr Glu Ser Asp Ile Asp Cys Thr Asp Asn Thr Lys Thr Lys Arg Arg Lys Thr Lys Gly Lys Ala Lys Val Val Arg Lys Glu Phe Val Pro Arg Asp Arg Glu Pro Asn Thr Lys Val Arg Thr Cys Met His Asn Gln Lys Asp Ala Val Gln Met Pro Ser Glu Thr Leu Lys Ala Lys Met Val Pro Glu Lys Val Pro Arg Arg Cys Ala Thr Val Ala Ala Asn Lys Ile Lys Ile Met Ser Asn 

<210> 3797

<211> 874

<212> PRT

<213> Homo sapiens

<400> 3797

Met Pro Gln Met Lys Ser Asp Lys Arg Glu Trp Ala Phe Val Lys Thr

1 5 10 15

Ala Arg His Asn Trp Tyr Ser Arg Arg Phe Phe Phe Leu Ser Asn Asp

			20					25					30		
Glu	Leu	Leu	Glu	Ile	Leu	Ser	Glu	Thr	Lys	Asp	Pro	Leu	Arg	Val	Gln
		35					40					45			
Pro	His	Leu	Lys	Lys	Cys	Phe	Glu	Gly	lle	Ala	Lys	Leu	Glu	Phe	Thr
	50					55					60				
Asp	Asn	Leu	Gly	He	Val	Gly	Met	He	Ser	Ser	Glu	Lys	Glu	Thr	Val
65					70					75					80
Pro	Phe	lle	Gln	Lys	lle	Tyr	Pro	Ala	Asn	Ala	Lys	Gly	Met	Val	Glu
				85					90					95	
Lys	Trp	Leu	Gln	G1n	Val	Glu	Gln	Met	Met	Leu	Ala	Ser	Met	Arg	Glu
			100					105					110		
Val	He	Gly	Leu	Gly	He	Glu	Ala	Tyr	Val	Lys	Val	Pro	Arg	Asn	His
		115					120					125			
Trp	Val	Leu	Gln	Trp	Pro	Gly	Gln	Va]	Va]	He	Cys	Va]	Ser	Ser	Пе
	130					135					140				
Phe	Trp	Thr	Gln	Glu	Val	Ser	Gln	Ala	Leu	Ala	Glu	Asn	Thr	Leu	Leu
145					150					155					160
Asp	Phe	Leu	Lys	Lys	Ser	Asn	Asp	Gln	He	Ala	Gln	He	Val	Gln	Leu
				165					170					175	
Val	Arg	Gly		Leu	Ser	Ser	Gly		Arg	Leu	Thr	Leu		Ala	Leu
			180					185					190		
Thr	Val		Asp	Val	His	Ala	Arg	Asp	Val	Val	Ala		Leu	Ser	Glu
		195					200		0.1			205	0.7		
Asp		Val	Ser	Asp	Leu		Asp	Phe	GIn	Trp		Ser	GIn	Leu	Arg
т	210 T	т.	V . 1	4.1		215	V. 1	C1	17 7	C1	220	7.1	Tr)	T)	6.1
	lyr	irp	vai	Ата		Asp	Val	GIn	vai		11e	11e	ınr	Inr	
225	Lou	Tun	C1	Т.,,,,	230	Туул	1	C1	Aan	235	Dava	A 20.00	Lan	V a 1	240
АЛА	Leu	1 y 3	GTY	245	Glu	1 y I	Leu	G1 Å	250	261.	Pro	Arg	reu	255	116
The	Pro	Lou	Thr		Ara	Cve	Tyr	Ana		Lou	Mot	C1v	Ala		Lvc
1111	110	Leu	260	пор	nig	Cis	1 7 1	265	1111	Leu	MC C	Oly	270	Leu	rys
Len	Asn	Len		G1v	Ala	$p_{ro}$	Glu		Pro	Ala	Glv	Thr		Lve	Thr
Leu	ИЗП	275	Oly	Oly	ma	110	280	017	110	MIG	Oly	285	Oly	Lyo	1111
Glo	Thr		Lvs	Asn	Len	Ala	Lys	Als	Len	Ala	Lvs		Cvs	Val	Val
J. U	290		,, , ,	p	,,,,,,	295	د دید	.,,0	,, c u	711 CI	300	~411	U 9 13		, (1.1
Phe		Cys	Ser	Asp	Glv		Asp	Tyr	Lvs	Ala		Glv	Lvs	Phe	Phe

305					310					315					320
Lys	Gly	Leu	Ala	Gln	Ala	Gly	Ala	Trp	Ala	Cys	Phe	Asp	Glu	Phe	Asn
				325					330					335	
Arg	He	Glu	Val	Glu	Val	Leu	Ser	Va]	Val	Ala	Gln	Gln	lle	Leu	Ser
			340					345					350		
He	Gln	Gln	Ala	He	He	Arg	Lys	Leu	Lys	Thr	Phe	He	Phe	Glu	G1 y
		355					360					365			
Thr	Glu	Leu	Ser	Leu	Asn	Pro	Thr	Cys	Ala	Val	Phe	He	Thr	Met	Asn
	370					375					380				
Pro	Gly	Tyr	Ala	Gly	Arg	Ala	Glu	Leu	Pro	Asp	Asn	Leu	Lys	Ala	Leu
385					390					395					400
Phe	Arg	Thr	Val		Met	Met	Va]	Pro		Tyr	Ala	Leu	He		G1 u
				405					410					415	
Met	Ser	Leu		Ser	Thr	G1 y	Phe		Asp	Ser	Arg	Ser		Ala	Gln
	~ 1	17 1	420	rn)	<b>m</b>			425	0	61	61		430		0.1
Lys	He		Ala	Thr	Tyr	Arg		Cys	Ser	Glu	GIn		Ser	Ser	GIn
11.		435	4	т	C1	14 .	440	4.1	V 1		c .	445	ī	T1 .	A 1
HIS		lyr	Asp	lyr	61y	Met	Arg	Ala	vai	Asn		vai	Leu	Inr	Ата
A I o	450	A	Lan	Lua	Lau	455	T.,,,,	Dage	C1	C1	460	<i>C</i> 1	Con	Vol.	Lau
	GIY	ASII	Leu	Lys	470	Lys	I y I	Pro	GIU	475	ASII	Gju	Set.	vai	480
465	Lou	A 22/4	Alo	Lou		Asp	Vol	Acn	Lou		Lvc	Dho	Lou	Ala	
Leu	Leu	A.I. g	Ala	485	Leu	nsp	1 61 1	лэн	490	MIG	Lys	THE	rea	495	OIII
Asn	Val	Pro	Len		Gln	Gly	He	He		Asn	Leu	Phe	Pro		Val
пор	, (1)	110	500	1110	0111	01,	110	505	001	пор	i.c.u	1110	510	O1,	
Val	Leu	Pro		Pro	Asp	Tyr	Glu		Phe	Leu	Lvs	Val		Asn	Asp
		515	Ĭ		•	•	520				-	525			•
Asn	He		Lys	Met	Lys	Leu	Gln	Pro	Va]	Pro	Trp	Phe	He	Gly	Lys
	530					535					540				
lle	lle	Gln	lle	Tyr	Glu	Met	Met	Leu	Val	Arg	His	Gly	Tyr	Met	He
545					550					555					560
Val	Gly	Asp	Pro	Met	Gly	Gly	Lys	Thr	Ser	Ala	Tyr	Lys	Val	Leu	Ala
				565					570					575	
Ala	Ala	Leu	Gly	Asp	Leu	His	Ala	Ala	Asn	Gln	Met	Glu	Glu	Phe	Ala
			580					585					590		

Val	Glu	Tyr	Lys	He	He	Asn	Pro	Lys	Ala	Ile	Thr	Met	Gly	Gln	Leu
		595					600					605			
Tyr	Gly	Cys	Phe	Asp	Gln	Val	Ser	His	Glu	Trp	Met	Asp	Gly	Val	Leu
	610					615					620				
Ala	Asn	Ala	Phe	Arg	Glu	Gln	Ala	Ser	Ser	Leu	Ser	Asp	Asp	Arg	Lys
625					630					635				•	640
Trp	He	lle	Phe	Asp	Gly	Pro	Val	Asp	Ala	He	Trp	lle	Glu	Asn	Met
				645					650					655	
Asn	Thr	Val	Leu	Asp	Asp	Asn	Lys	Lys	Leu	Cys	Leu	Met	Ser	Gly	Glu
			660					665					670		
Ile	Ile		Met	Asn	Ser	Lys	Met	Ser	Leu	He	Phe	Glu	Pro	Ala	Asp
		675					680					685			
Leu		Gln	Ala	Ser	Pro	Ala	Thr	Val	Ser	Arg	Cys	Gly	Met	Пе	Tyr
	690					695					700				
	Glu	Pro	His	Gln		Gly	Trp	Lys	Pro		Lys	Asp	Ser	Tyr	
705					710					715					720
Asp	Thr	Leu	Pro		Ser	Leu	Thr	Lys		His	Lys	Glu	Leu		Asn
				725					730	_				735	
Asp	Met	Phe		Trp	Leu	Val	Gln		Cys	Leu	Glu	Phe		Arg	Leu
,,,	C		740	V. 1	V 1	C 1	T)	745	D	7.1		-	750	151	a
HIS	Cys		Phe	Val	Val	Gln		Ser	Pro	He	His		Ala	Phe	Ser
14 .		755		T.	C	C	760			61		765		12. 3	6.1
Met		Arg	Leu	iyi	Ser	Ser	Leu	Leu	Asp	61u		Arg	Ala	Val	Glu
C1	770	C1	Mad	C1	1	775	C1	C1		C	780	C1	CT.	11	101
785	GIU	Giu	Met	Gju	790	Gly	GIU	GIY	Leu	5er 795	ser	GIN	GIN	116	
	Tun	Lou	Cln	Cly		Dho	Lou	Dho	Sor		Vo.1	Two	The	Ve 1	800
Leu	птр	Leu	OTII	805	Leu	Phe	Leu	rne	810	Leu	vai	11 b	1111	815	АТа
Glv	Thr	ماا	Aen		Acn	Ser	Δισ	Lve		Pho	Acn	Val	Dho		Area
Ory	1111	116	820	Mia	лэр	261	мв	825	rys	1116	nsp	va1	830	THC	мв
Asn	Len	He		Glv	Met	Asp	Asn		His	Pro	Arg	Pro		Ser	Val
71011	Lea	835	,nc c	019	MC C	пор	840	11.511	пто	,10	мε	845	127.3	001	, (1)
Lvs	Leu		Lvs	Asn	Asn	lle		Pro	Glu	Arg	G1 v		He	Tyr	Asn
22,0	850		2,0			855			<b>., u</b>	8	860	~~1		194	р
Phe		Phe	He	Lvs	Gln	Ala	Ser	Glv	His						
865	<b>y</b>				870										

<210> 3798 <211> 184 <212> PRT <213> Homo sapiens <400> 3798 Met Glu Ser Ile Tyr Leu Gln Lys His Leu Gly Ala Cys Leu Thr Gln 5 10 Gly Leu Ala Glu Val Ala Arg Val Arg Pro Val Asp Pro 11e Glu Tyr 25 Leu Ala Leu Trp lle Tyr Lys Tyr Lys Glu Asn Val Thr Met Glu Gln 35 40 45 Leu Arg Gln Lys Glu Met Ala Lys Leu Glu Arg Glu Arg Glu Leu Ala 55 Leu Met Glu Gln Glu Met Met Glu Arg Leu Lys Ala Glu Glu Leu Leu 70 75 Leu Gln Gln Gln Leu Ala Leu Gln Leu Glu Leu Glu Met Gln Glu 85 90 95 Lys Glu Arg Gln Arg Ile Gln Glu Leu Gln Arg Ala Gln Glu Gln Leu 105 Gly Lys Glu Met Arg Met Asn Met Glu Asn Leu Val Arg Asn Glu Asp 120 125 115 lle Leu His Ser Glu Glu Ala Thr Leu Asp Ser Gly Lys Thr Leu Ala 135 Glu Ile Ser Asp Arg Tyr Gly Ala Pro Asn Leu Ser Arg Val Glu Glu 150 155 Leu Asp Glu Pro Met Phe Ser Asp Val Ser lle Ser Val Phe Cys Glu 170 165 175 Lys Thr Arg Phe Cys Phe Cys Phe

<210> 3799 <211> 127

<212> PRT
<213> Homo sapiens
<400> 3799
Met Val Met Gly Ty

1
Cys Gln Cys Arg Se
20
Ser Ala Ser Arg Cys

Met Val Met Gly Tyr Ser Ala Gly Ala Leu His Trp Ser Gly Met Val

1 5 10 15

Cys Gln Cys Arg Ser Tyr Gly Val Gly Pro Gln Ser Pro Gln Asp Cys 20 25 30

Ser Ala Ser Arg Cys Gly Leu Ala Gly Ala Pro Gly Glu Ala Ser Arg 35 40 45

Ala Arg Gly Pro Gln Val Gly Leu Ala Leu Phe Asp Gly Gln Asp His
50 55 60

Pro Ala Glu Phe Arg Ser Asp Asp Ser Pro Arg Ala Lys Val Ser Cys
65 70 75 80

Gly Ser Lys Leu Ser Leu Val Gly Met Ala Val Pro Gly His Ser Pro 85 90 95

Leu Gln Thr Leu Leu Arg Pro Thr Leu Trp Ala Pro His Gln Leu Ala 100 105 110

Cys His Pro Tyr His Phe Ser Lys Gln Leu Ser Leu Thr Thr Arg 115 120 125

<210> 3800

<211> 156

<212> PRT

<213> Homo sapiens

<400> 3800

Met Ser Val Pro Thr Ser Thr Leu Asp Ser Gln Ser Pro Pro Thr Ala 1 5 10 15

His Thr Ala Lys Cys Thr Ala Leu Cys Ser Leu Met Pro His Gly Ser
20 25 30

Arg Glu His Ser Val Glu 11e Pro Lys Asp Gln Leu Ala Ser Pro Thr 35 40 45

Glu Pro Arg Pro Trp Glu Gln Gln Cys Tyr His Gly Asn Gly Gln Ser 50 55 60 Tyr Arg Gly Thr Tyr Phe Thr Thr Val Thr Gly Arg Thr Cys Gln Ala Trp Ser Ser Met Thr Pro His Gln His Ser Arg Thr Pro Glu Lys Tyr 85 90 Pro Asn Ala Tyr Val Phe Val Leu Tyr His Lys Arg Arg Lys Gly Gln 105 Leu Lys Phe Leu Leu Glu Glu Ser Cys Phe Glu Leu Thr Ala Gln Asp 115 120 125 Ser Thr Cys Val Arg Cys Lys Gly His Ser Lys Met Ser Gln Glu His 130 135 140 Cys Leu Gly Ala Lys Ser Leu Arg Glu Glu Lys Tyr 150 155

<210> 3801

<211> 461

<212> PRT

<213> Homo sapiens

<400> 3801

Met Gly Val Ser Gly Pro Leu Val Leu Val Leu Ser Thr Glu Phe Arg

1 5 10 15

His Leu Tyr Leu Pro Lys Tyr Glu Gln Thr Thr Tyr Thr Cys Ala His  $20 \hspace{1cm} 25 \hspace{1cm} 30$ 

Val Ala Arg Glu Thr Ser Ala Leu Lys Leu Arg Pro Arg Val His Leu 35 40 45

Ala Cys Val Leu Ser Val His Thr Pro Thr Lys His Pro Gly Ala Thr 50 55 60

Pro Gly Ala Ser Ala lle Gly Gly Cys Pro Phe Pro Glu Ala Gln Ala 65 70 75 80

Pro Pro Ser Pro Ser Arg Ile Leu Arg Phe Pro Trp Gln Leu Val Gln 85 90 95

Glu Gln Val Arg Gln Thr Met Ala Glu Ala Leu Lys Val Trp Ser Asp 100 105 110

Val Thr Pro Leu Thr Phe Thr Glu Val His Glu Gly Arg Ala Asp lle 115 120 125

Met	Ile 130	Asp	Phe	Ala	Arg	Tyr 135	Trp	His	Gly	Asp	Asp 140	Leu	Pro	Phe	Asp
Gly	Pro	Gly	Gly	He	Leu	Ala	His	Ala	Phe	Phe	Pro	Lys	Thr	His	Arg
145					150					155					160
Glu	Gly	Asp	Val	His	Phe	Asp	Tyr	Asp	Glu	Thr	Trp	Thr	He	G1 y	Asp
				165					170					175	
Asp	Gln	Gly	Thr 180	Asp	Leu	Leu	G1n	Val 185	Ala	Ala	His	Glu	Phe 190	Gly	His
Val	Leu	Gly 195	Leu	Gln	His	Thr	Thr 200	Ala	Ala	Lys	Ala	Leu 205	Met	Ser	Ala
Phe	Tyr 210	Thr	Phe	Arg	Tyr	Pro 215	Leu	Ser	Leu	Ser	Pro 220	Asp	Asp	Cys	Arg
Gly	Val	Gln	His	Leu	Tyr	Gly	Gln	Pro	Trp	Pro	Thr	Val	Thr	Ser	Arg
225					230					235					240
Thr	Pro	Ala	Leu	Gly	Pro	Gln	Ala	G1 y	He	Asp	Thr	Asn	Glu	lle	Ala
				245					250					255	
Pro	Leu	Glu	Pro 260	Asp	Ala	Pro	Pro	Asp 265	Ala	Cys	Glu	Ala	Ser 270	Phe	Asp
Ala	Val	Ser 275	Thr	lle	Arg	Gly	Glu 280	Leu	Phe	Phe	Phe	Lys 285	Ala	Gly	Phe
Val	Trp 290	Arg	Leu	Arg	Gly	Gly 295	Gln	Leu	Gln	Pro	G1y 300	Tyr	Pro	Ala	Leu
Ala	Ser	Arg	His	Trp	Gln	Gly	Leu	Pro	Ser	Pro	Val	Asp	Ala	Ala	Phe
305					310					315					320
Glu	Asp	Ala	Gln	Gly	His	Ile	Trp	Phe	Phe	Gln	Gly	Ala	Gln	Tyr	Trp
				325					330					335	
Val	Tyr	Asp	Gly 340	Glu	Lys	Pro	Val	Leu 345	Gly	Pro	Ala	Pro	Leu 350	Thr	Glu
Leu	Gly	Leu 355	Val	Arg	Phe	Pro	Val 360	His	Ala	Ala	Leu	Val 365	Trp	Gly	Pro
Glu	Lys	Asn	Lys	He	Tyr	Phe	Phe	Arg	Gly	Arg	Asp	Tyr	Trp	Arg	Phe
	370					375					380				
His	Pro	Ser	Thr	Arg	Arg	Val	Asp	Ser	Pro	Val	Pro	Arg	Arg	Ala	Thr
385					390					395					400
Asp	Trp	Arg	Gly	Val	Pro	Ser	Glu	He	Asp	Ala	Ala	Phe	Gln	Asp	Ala
				405					410					415	

<210> 3802

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3802

Met Ala Ala Arg Gln Gln Gln Gln 11e Glu Asn Gln Gln Gln Met Leu

1 5 10 15

Val Ala Lys Glu Gln Arg Leu His Phe Leu Lys Gln Gln Glu Arg Arg 20 25 30

Gln Gln Gln Ser Ile Ser Glu Asn Glu Lys Leu Gln Lys Leu Lys Glu 35 40 45

Arg Val Glu Ala Gln Glu Asn Lys Leu Lys Lys Ile Arg Ala Met Arg 50 55 60

Gly Gln Val Asp Tyr Ser Lys Ile Met Asn Gly Asn Leu Ser Ala Glu
65 70 75 80

lle Glu Arg Phe Ser Ala Met Phe Gln Glu Lys Lys Gln Glu Val Gln
85 90 95

Thr Ala Ile Leu Arg Val Asp Gln Leu Ser Gln Gln Leu Glu Asp Leu
100 105 110

Lys Lys Gly Lys Leu Asn Gly Phe Gln Ser Tyr Asn Gly Lys Leu Thr 115 120 125

Gly Pro Ala Ala Val Glu Leu Lys Arg Leu Tyr Gln Glu Leu Gln Ile 130 135 140

Arg Asn Gln Leu Asn Gln Glu Gln Asn Ser Lys Leu Gln Gln Gln Lys 145 150 155 160

Glu Leu Leu Asn Lys Arg Asn Met Glu Val Ala Met Met Asp Lys Arg 165 170 175

lle	Ser	Glu	Leu	Arg	Glu	Arg	Leu	Tyr	Gly	Lys	Lys	Пe	G1n	Leu	Asn
			180					185					190		
Arg	Val	Asn	Gly	Thr	Ser	Ser	Pro	Gln	Ser	Pro	Leu	Ser	Thr	Ser	Gly
		195					200					205			
Arg	Val	Ala	Ala	Val	Gly	Pro	Tyr	Пе	Gln	Val	Pro	Ser	Ala	Gly	Ser
	210					215					220				
	Pro	Val	Leu	Gly	Asp	Pro	He	Lys	Pro		Ser	Leu	Ser	He	
225					230					235					240
Ser	Asn	Ala	Ala		Gly	Arg	Ser	Lys		Ala	Asn	Asp	Gly		Trp
				245		_	_		250		_			255	
·Pro	Thr	Leu		Gln	Asn	Ser	Ser		Ser	Val	Lys	Pro		GIn	Val
. 1	61	A 7	260	т	,		D	265	v i	61	C1	C	270		61
Ala	Gly		Asp	Irp	Lys	Asp		Ser	Val	Glu	GIy		Val	Lys	Gin
C1	Tl	275	C 1-	C 11	C1	Dwa	280 Val	Dwa	Dla a	C - 10	41.5	285	C1	Dwa	Than
GIY	1nr 290	vai	ser	ser	G1n	295	vai	Pro	rne	ser	300	Leu	01 À	Pro	ınr
Glu		Pro	Glv	Πla	G1u		G1 v	Lve	Val	Pro		Pro	Πο	Pro	Glv
305	Lys	110	Gly	116	310	116	GIY	Lys	vai	315	110	110	116	110	320
	Glv	Lvs	Gln	Leu	Pro	Pro	Ser	Tvr	Glv		Tvr	Pro	Ser	Pro	
, 41	017	2,0	0111	325			501	.,.	330		1,1		501	335	
Pro	Leu	Gly	Pro	Gly	Ser	Thr	Ser	Ser	Leu	Glu	Arg	Arg	Lys		Gly
		•	340					345					350		
Ser	Leu	Pro	Arg	Pro	Ser	Ala	Gly	Leu	Pro	Ser	Arg	Gln	Arg	Pro	Thr
		355					360					365			
Leu	Leu	Pro	Ala	Thr	Gly	Ser	Thr	Pro	Gln	Pro	Gly	Ser	Ser	Gln	Gln
	370					375					380				
Ile	Gln	Gln	Arg	lle	Ser	Val	Pro	Pro	Ser	Pro	Thr	Tyr	Pro	Pro	Ala
385					390					395					400
Gly	Pro	Pro	Ala	Phe	Pro	Ala	Gly	Asp	Ser	Lys	Pro	Ġlu	Leu	Pro	Leu
				405					410					415	
Thr	Val	Ala	He	Arg	Pro	Phe	Leu	Ala	Asp	Lys	Gly	Ser	Arg	Pro	Gln
			420					425					430		
Ser	Pro	Arg	Lys	G1 y	Pro	Gln	Thr	Val	Asn	Ser	Ser	Ser	lle	Tyr	Ser
		435					440					445			
Met	Tyr	Leu	Gln	Gln	Ala		Pro	Pro	Lys	Asn	Tyr	Gln	Pro	Ala	Ala
	450					455					460				

His Ser Ala Leu Asn Lys Ser Val Lys Ala Val Tyr Gly Lys Pro Val 465 470 475 Leu Pro Ser Gly Ser Thr Ser Pro Ser Pro Leu Pro Phe Leu His Gly 485 490 Ser Leu Ser Thr Gly Thr Pro Gln Pro Gln Pro Pro Ser Glu Ser Thr 505 Glu Lys Glu Pro Glu Gln Asp Gly Pro Ala Ala Pro Ala Gly Pro Thr 520 Ser Arg Ser Cys Cys Thr Ser Ala Ser Thr Leu Ser Pro Thr Lys Leu 535 530 540 Thr Pro Ile Val His Ser Pro Leu Arg Tyr Gln Ser Asp Ala Asp Leu 550 555 Glu Ala Leu Arg Arg Lys Leu Ala Asn Ala Pro Arg Pro Leu Lys Lys 565 570 575 Arg Ser Ser Ile Thr Glu Pro Glu Gly Pro Phe Leu Pro Ala Gln Pro 580 585 Leu Pro Gly Leu His Gly His Leu Gly Arg Cys Gly Gln Trp Lys His 600 Gln Cys Gln Trp Lys Pro Gly Arg Ala Pro Pro Cys Pro Ala His Ser 610 615 620 Pro Thr Pro Arg 625

<210> 3803

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3803

Pro Thr Pro Ala Trp Pro Ala Ser Cys Glu Ala Leu Met Gly Pro Ser Ser Ser Ala Gly Pro Ala Arg Leu Arg Leu Pro Pro Arg Arg His Ser Ser Leu Pro Pro Arg Arg Ala Ser Phe Leu Ile Val Ser Arg Ala Ser Lys Ser Trp Glu Cys Ala Gly Pro Val Pro Ala Leu Pro Gly Gly Val Val Ala Val Pro Thr Ser Gln Gln Asp Pro Gln Cys Arg Gly Ser Gln Val Ala His Arg Arg Cys Leu Ser Arg Ala Ile Leu Gln Ser Gly Pro Gln Cys Gln Ser Cys Leu Ser lle Trp Val Thr Ser Ala Arg Ser Arg Val Gln Ala Ser Ser Arg Ser 

<210> 3804

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3804

Met Glu Pro Leu Glu Ile Pro Val Glu Thr Ile Thr Ser Glu Val Ile Glu Lys Cys Thr Thr Pro Leu Ser Asp Asp His Asp Glu Lys Tyr Gly Val Pro Ser Leu Glu Glu Leu Gly Phe Asp Thr Asp Gly Leu Ser Ser Ala Val Trp Pro Gly Gly Glu Thr Glu Ala Leu Thr Arg Leu Glu Arg His Leu Glu Arg Lys Ala Trp Val Ala Asn Phe Glu Arg Pro Arg Met Asn Ala Asn Ser Leu Leu Ala Ser Pro Thr Gly Leu Ser Pro Tyr Leu

Arg	Phe	Gly	Cys	Leu	Ser	Cys	Arg	Leu	Phe	Tyr	Phe	Lys	Leu	Thr	Asp
			100					105					110		
Leu	Tyr	Lys	Lys	Val	Lys	Lys	Asn	Ser	Ser	Pro	Pro	Leu	Ser	Leu	Tyr
		115					120					125			
Gly	Gln	Leu	Leu	Trp	Arg	Glu	Phe	Phe	Tyr	Thr	Ala	Ala	Thr	Asn	Asn
	130					135					140				
	Arg	Phe	Asp	Lys		Glu	Gly	Asn	Pro		Cys	Val	Gln	He	
145					150					155					160
Trp	Asp	Lys	Asn		Glu	Ala	Leu	Ala		Trp	Ala	Glu	Gly		Thr
			_	165					170					175	
Gly	Phe	Pro		He	Asp	Ala	He		Thr	GIn	Leu	Arg		Glu	Gly
Æ.			180					185		. 1	0	101	190	701	
Trp	He		H1\$	Leu	Ala	Arg		Ala	Val	Ala	Cys		Leu	Ihr	Arg
C)		195	т	11	C	т	200	C1	C1			205	DI	C1	C1
61 y		Leu	rp	116	Ser	Trp	GIU	GJu	61 y	мет		vai	Pne	GIU	Glu
Lau	210	Lou	Aon	110	Aon	215	Con	11.	Aan	110	220	Con	Two	Mot	Two
225	Leu	Leu	nsp	міа	230	Trp	261	116	дэн	235	огу	sei	11 b	Met	240
	Ser	Cvs	Ser	Ser		Phe	Gln	Gln	Phe		Hic	Cvs	Tyr	Cve	
Dea	501	0,3	561	245	1110	1110	OIII	Oill	250	1110	111.5	0,3	1 ) 1	255	110
Val	Glv	Phe	Glv		Arg	Thr	Asp	Pro		Glv	Asp	Tvr	He		Arg
	,		260	0	0		,	265			,	- , –	270	0	0
Tyr	Leu	Pro		Leu	Arg	G1 y	Phe		Ala	Lys	Tyr	lle		Asp	Pro
Ť		275					280					285		·	
Trp	Asn	Ala	Pro	Glu	Gly	lle	Gln	Lys	Val	Ala	Lys	Cys	Leu	lle	Gly
	290					295					300				
Val	Asn	Tyr	Pro	Lys	Pro	Met	Val	Asn	His	Ala	Glu	Ala	Ser	Arg	Leu
305					310					315					320
Asn	He	Glu	Arg	Met	Lys	Gln	lle	Tyr	Gln	Gln	Leu	Ser	Arg	Tyr	Arg
				325					330					335	
Gly	Leu	Glu	Asn	Phe	Phe	Val	Leu								
			340												

⟨210⟩ 3805

<211> 485

<212> PRT <213> Homo sapiens

<400> 3805 Met Asp Asn Glu Cys Val Ala Gln Thr Trp Phe Arg Phe Leu His Met Leu Ser Asn Pro Val Asp Leu Ser Asn Pro Ala Ile Ile Ser Ser Thr Pro Lys Phe Gln Glu Gln Phe Leu Asn Val Ser Gly Met Pro Gln Glu Leu Asn Gln Tyr Pro Cys Leu Lys His Leu Pro Gln Ile Phe Phe Arg Ala Met Arg Gly IIe Ser Cys Leu Val Asp Ala Phe Leu Gly Ile Ser Arg Pro Arg Ser Asp Ser Ala Pro Pro Thr Pro Val Asn Arg Leu Ser Met Pro Gln Ser Ala Ala Val Ser Thr Thr Pro Pro His Asn Arg Arg His Arg Ala Val Thr Val Asn Lys Ala Thr Met Lys Thr Ser Thr Val Ser Thr Ala His Ala Ser Lys Val Gln His Gln Thr Ser Ser Thr Ser Pro Leu Ser Ser Pro Asn Gln Thr Ser Ser Glu Pro Arg Pro Leu Pro Ala Pro Arg Arg Pro Lys Val Asn Ser lle Leu Asn Leu Phe Gly Ser Trp Leu Phe Asp Ala Ala Phe Val His Cys Lys Leu His Asn Gly lle Asn Arg Asp Ser Ser Met Thr Ala Ile Thr Thr Gln Ala Ser Met Glu Phe Arg Arg Lys Gly Ser Gln Met Ser Thr Asp Thr Met Val Ser Asn 

Pro Met Phe Asp Ala Ser Glu Phe Pro Asp Asn Tyr Glu Ala Gly Arg

Ala Glu Ala Cys Gly Thr Leu Cys Arg 11e Phe Cys Ser Lys Lys Thr

				245					250					255	
Gly	Glu	Glu	He	Leu	Pro	Ala	Tyr	Leu	Ser	Arg	Phe	Tyr	Met	Leu	Leu
			260					265					270		
He	Gln	G1 y	Leu	Gln	He	Asn	Asp	Tyr	Val	Cys	His	Pro	Val	Leu	Ala
		275					280					285			
Ser	Val	He	Leu	Asn	Ser	Pro	Pro	Leu	Phe	Cys	Cys	Asp	Leu	Lys	Gly
	290					295					300				
11e	Asp	Val	Val	Val	Pro	Tyr	Phe	Πe	Ser	Ala	Leu	Glu	Thr	lle	Leu
305					310					315					320
Pro	Asp	Arg	Glu	Leu	Ser	Lys	Phe	Lys	Ser	Tyr	Val	Asn	Pro	Thr	Glu
				325					330					335	
Leu	Arg	Arg	Ser	Ser	He	Asn	He	Leu	Leu	Ser	Leu	Leu	Pro	Leu	Pro
			340					345					350		
His	His	Phe	Gly	Thr	Val	Lys	Ser	Glu	Va1	Val	Leu	Glu	G] y	Lys	Phe
		355					360					365			
Ser	Asn	Asp	Asp	Ser	Ser	Ser	His	Asp	Lys	Pro	He	Thr	Phe	Leu	Ser
	370					375					380				
Leu	Lys	Leu	Arg	Leu	Val	Asn	He	Leu	lle	Gly	Ala	Leu	Gln	Thr	Glu
385					390					395				-	400
Thr	Asp	Pro	Asn	Asn	Thr	Gln	Met	lle	Leu	Gly	Ala	Met	Leu	Asn	Ile
				405					410					415	
Val	Gln	Asp	Ser	Ala	Leu	Leu	Glu	Ala	He	Gly	Cys	Gln	Met	Glu	Met
			420					425					430		
G1 y	Gly	Gly	Glu	Asn	Asn	Leu	Lys	Ser	His	Ser	Arg	Thr	Asn	Ser	Gly
		435					440					445			
He	Ser	Ser	Ala	Ser	Gly	Gly	Ser	Thr	Glu	Pro	Thr	Thr	Pro	Asp	Ser
	450					455					460				
G] u	Arg	Pro	Ala	GIn	Ala	Leu	Leu	Arg	Val	Met	Leu	Leu	He	Gln	He
465					470					475					480
Gln	Leu	Leu	Gly	Ser											
				485											

<210> 3806

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3806

Met Phe Ala Cys Ala Lys Leu Ala Cys Thr Pro Ser Leu 11e Arg Ala 1 5 10 15

Gly Ser Arg Val Ala Tyr Arg Pro Ile Ser Ala Ser Val Leu Ser Gln 20 25 30

Pro Glu Ala Ser Arg Thr Gly Glu Gly Ser Ala Val Phe Asn Gly Ala 35 40 45

Gln Asn Gly Val Ser Gln Leu lle Gln Arg Gly Phe Gln Thr Ser Ala 50 55 60

Ile Ser Arg Asp 11e Asp Thr Ala Ala Lys Phe 11e Gly Ala Gly Ala 65 70 75 80

Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe
85 90 95

Gly Ser Leu 11e 11e Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln 100 105 110

Leu Phe Ser Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly
115 120 125

Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met 130 135 140

<210> 3807

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3807

Met His Ser Lys Leu Ser His Cys Phe Phe Val Pro Leu Thr Cys 11e

1 5 10 15

Ser Trp 11e Met Leu Phe Leu Asp Phe Leu Phe Arg Ala Val Arg 11e 20 25 30

His Phe Leu Leu Cys His Cys Lys 11e Leu Ala Gly Ser Pro 11e Thr 35 40 45

Val Cys Thr Ala Leu Ser Cys Arg Gln Gly Gln Gly Glu Thr Ser Ala

60 50 55 Met Ala Ser Tyr Val Ala Arg Asn Leu Leu Met Ser Pro Ser Lys Thr 70 75 80 Val Gly Pro Ala Ser Ala Arg Pro Cys Ala Leu Lys Ser Ser Pro Tyr 85 90 95 Gly Glu Met Gly Leu Gly 100 <210> 3808 <211> 101 <212> PRT

<400> 3808

<213> Homo sapiens

Met Pro Pro Arg Ser Leu Ser Cys His His Gly Thr Gly Trp Ala Trp

1 5 10 15

Arg Phe Gly Arg His Trp Lys Leu Arg Gly Glu Glu Ala Gly His Leu

20 25 30

Arg Gly Leu Gly His Leu Gly Gly Gln Gly Glu Arg Phe Gly Gly His

Gly Ala Gly Arg Phe Gly Ala Leu Gly Glu Asp Phe Gln Gly Leu Gly 50 55 60

Ser Pro Gly Gly Gly Ala Glu Arg Gly Gln Arg Ser Leu Asn Ser Arg 65 70 75 80

Pro Pro Trp Leu His Pro Gly Asn Gly Pro Leu Leu Leu Arg His Arg 85 90 95

Asp Ala Val Ala His

100

<210> 3809

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3809 Met Arg Glu Phe Ser Leu Ile Glu Leu Trp Leu Met Pro Lys Val Phe 10 Asn His Tyr Val Trp Gly Ser Phe Leu Val Gln Arg Lys Lys Gln 25 30 Pro Lys Ser Val Leu Val Tyr His Cys Thr Ser Gly Asn Leu Asn Pro 40 45 Cys Asn Arg Gly Lys Met Gly Phe Gln Val Leu Ala Thr Phe Glu 11e 50 55 60 Pro Ile Pro Phe Glu Arg Ala Leu Thr Arg Pro Tyr Ala Asp Phe Thr 65 70 75 Thr Ser Asn Phe Arg Thr Gln Tyr Trp Asn Ala Ile Ser Gln Gln Ala 85 90 Pro Ala 11e 11e Tyr Asp Phe Tyr Leu Trp Leu Thr Gly Arg Lys Pro 100 105 110 Ser Tyr Arg Arg Lys lle Pro Ser Ser Thr Gln Phe Tyr Lys Trp Arg 120 125 Asn Arg Ser 130 <210> 3810 <211> 140 <212> PRT <213> Homo sapiens <400> 3810

\4002 3610

70 75 80 Thr Lys Leu Ser Trp Ala Phe Ser Pro Thr Arg Glu Ala Leu Met Ser 90 Phe Ile Glu Ala Leu Lys His Gln Ser Leu Ser Gln Ala Ser Ser Gln 100 105 110 Thr Phe Cys Asn Met Ser Ala Leu Thr Arg Phe Lys Ala Asn Val Phe 120 125 Pro Cys Arg Glu Glu Gly Ala Leu Arg Leu Ile Asp 130 135 140

<210> 3811

<211> 157

<212> PRT

<213> Homo sapiens

<400> 3811

Met Lys Leu Lys Cys Ile Phe Gly Phe Ala Thr Lys Glu Thr Ser Cys

1 5 10 15

Tyr Asn Val Thr Asn lle Gly Phe Lys Ser Pro Ser Asp Phe Trp Gln
20 25 30

Ser Val His Ser Thr Leu Pro Arg Glu Leu Ala Pro Cys Leu Val Phe 35 40 45

Asn Thr Ser Pro Asn Leu Ala Leu Phe Ser Ala Ala Phe Ala Phe Ile 50 55 60

Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Gln Glu Leu
65 70 75 80

Lys Ser Met Val Ala Thr Lys lle Ala Lys Tyr Ala Val Pro Asp Glu 85 90 95

11e Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys Val Met 100 105 110

Arg Arg Leu Leu Arg Lys lle lle Thr Ser Glu Ala Gln Glu Leu Gly
115 120 125

Asp Thr Thr Thr Leu Glu Asp Pro Ser 11e 11e Ala Glu 11e Leu Ser 130 135 140

Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys

145 150 155

<210> 3812

<211> 1591

<212> PRT

<213> Homo sapiens

<400> 3812

Met Val Gln Gly Arg Val Thr Glu Val Lys Phe Pro Leu Glu His Tyr

1 5 10 15

11e Leu Glu Leu Gln Asp His Arg Val Ala Leu Asn Gly Ser His Ser 20 25 30

Glu Lys Val Ala lle Leu Asp Asp Lys Thr Ala Met Val Thr Ala Ser 35 40 45

Gln Leu Gly Gln Thr Asn Leu Val Phe Val His Lys Asn Val His Met 50 55 60

Arg Ser Val Ser Gly Leu Pro Asn Cys Thr Ile Tyr Val Val Glu Pro 65 70 75 80

Gly Phe Leu Gly Phe Thr Val Gln Pro Gly Asn Arg Trp Ser Leu Glu 85 90 95

Val Gly Gln Val Tyr Val Ile Thr Val Asp Val Phe Asp Lys Ser Ser
100 105 110

Thr Lys Val Tyr Ile Ser Asp Asn Leu Arg Ile Thr Tyr Asp Phe Pro 115 120 125

Lys Glu Tyr Phe Glu Glu Gln Leu Thr Thr Val Asn Gly Ser Tyr His

130
135
140

Ile Val Lys Ala Leu Lys Asp Gly Val Val Val Ile Asn Ala Ser Leu
145
150
155
160

Thr Ser lle lle Tyr Gln Asn Lys Asp lle Gln Pro lle Lys Phe Leu 165 170 175

The Lys His Gln Gln Glu Val Lys He Tyr Phe Pro lle Met Leu Thr

180 185 190

Pro Lys Phe Leu Ala Phe Pro His His Pro Met Gly Met Leu Tyr Arg 195 200 205

Tyr Lys Val Gln Val Glu Gly Gly Ser Gly Asn Phe Thr Trp Thr Ser

	210					215					220				
Ser	Asn	Glu	Thr	Va]	Val	He	Val	Thr	Thr	Lys	Gly	Val	Val	Thr	Ala
225					230					235					240
G1 y	Gln	Val	Arg	Gly	Asn	Ser	Thr	Val	Leu	Ala	Arg	Asp	Val	G1n	Asn
				245					250					255	
Pro	Phe	Arg	Tyr	Gly	Glu	lle	Lys	lle	His	Val	Leu	Lys	Leu	Asn	Lys
			260					265					270		
Met	Glu	Leu	Leu	Pro	Phe	His	Ala	Asp	Val	Glu	Ile	Gly	Gln	Ile	He
		275					280					285			
Glu	lle	Pro	He	Ala	Met	Tyr	His	Ile	Asn	Lys	Glu	Thr	Lys	Glu	Ala
	290					295					300				
Met	Ala	Phe	Thr	Asp	Cys	Ser	His	Leu	Ser	Leu	Asp	Leu	Asn	Met	Asp
305					310					315					320
Lys	Gln	Gly	Val	Phe	Thr	Leu	Leu	Lys	Glu	Gly	He	Gln	Arg	Pro	Gly
				325					330					335	
Pro	Met	His	Cys	Ser	Ser	Thr	His	lle	Ala	Ala	Lys	Ser	Leu	Gly	His
			340					345					350		
Thr	Leu	Val	Thr	Val	Ser	Val	Asn	Glu	Cys	Asp	Lys	Tyr	Leu	Glu	Ser
		355					360					365			
Ser	Ala	Thr	Phe	Ala	Ala	Tyr	Glu	Pro	Leu	Lys	Ala	Leu	Asn	Pro	Val
	370					375					380				
Glu	Val	Ala	Leu	Val	Thr	Trp	Gln	Ser	Val	Lys	Glu	Met	Val	Phe	Glu
385					390					395					400
Gly	Gly	Pro	Arg	Pro	Trp	Ile	Leu	Glu	Pro	Ser	Arg	Phe	Phe	Leu	Glu
				405					410					415	
Leu	Asn	Ala	Glu	Lys	Thr	Glu	Lys	Ile	Gly	lle	Ala	Gln	Val	Trp	Leu
			420					425					430		
Pró	Ser	Lys	Arg	Lys	Gln	Asn	Gln	Tyr	lle	Tyr	Arg	He	Gln	Cys	Leu
		435					440					445			
Asp	Leu	Gly	Glu	Gln	Val	Leu	Thr	Phe	Arg	11e	Gly	Asn	His	Pro	Gly
	450					455					460				
Val	Leu	Asn	Pro	Ser	Pro	Ala	Val	Glu	Val	Leu	Gln	Val	Arg	Phe	Пе
465					470					475					480
Cys	Ala	His	Pro	Ala	Ser	Met	Ser	Val	Thr	Pro	Val	Tyr	Lys	Val	Pro
				485					490					495	
Ala	Gly	Ala	Gln	Pro	Cys	Pro	Leu	Pro	Gln	His	Asn	Lys	Trp	Leu	He

			500					505					510		
Pro	Val	Ser 515	Arg	Leu	Arg	Asp	Thr 520	Val	Leu	Glu	Leu	Ala 525	Val	Phe	Asp
Gln	His 530	Arg	Arg	Lys	Phe	Asp 535	Asn	Phe	Ser	Ser	Leu 540	Met	Leu	Glu	Trp
Lys 545	Ser	Ser	Asn	Glu	Thr 550	Leu	Ala	His	Phe	Glu 555	Asp	Tyr	Lys	Ser	Val 560
Glu	Met	Val	Ala	Lys 565	Asp	Gly	Gly	Ser	Gly 570	Gln	Thr	Arg	Leu	His 575	Gly
His	Gln	Ile	Leu 580	Lys	Val	His	Gln	Ile 585	Lys	Gly	Thr	Val	Leu 590	Ile	G1 y
Val	Asn	Phe 595	Val	Gly	Tyr	Ser	Glu 600	Lys	Lys	Ser	Pro	Lys 605	Glu	lle	Ser
Asn	Leu 610	Pro	Arg	Ser	Val	Asp 615	Val	Glu	Leu	Leu	Leu 620	Val	Asp	Asp	Val
Thr 625	Val	Val	Pro	Glu	Asn 630	Ala	Thr	lle	Tyr	Asn 635	His	Pro	Asp	Val	Lys 640
Glu	Thr	Phe	Ser	Leu 645	Val	Glu	Gly	Ser	Gly 650	Tyr	Phe	Leu	Val	Asn 655	Ser
Ser	Glu	Gln	Gly 660	Val	Val	Thr	Ile	Thr 665	Tyr	Met	Glu	Ala	Glu 670	Ser	Ser
Val	Glu	Leu 675	Val	Pro	Leu	His	Pro 680	Gly	Phe	Phe	Thr	Leu 685	Glu	Val	Tyr
Asp	Leu 690	Cys	Leu	Ala	Phe	Leu 695	G1 y	Pro	Ala	Thr	Ala 700	His	Leu	Arg	Val
Ser 705	Asp	lle	Gln	Glu	Leu 710	Glu	Leu	Asp	Leu	Ile 715		Lys	Val	Glu	11e
Asp	Lys	Thr	Val	Leu 725	Val	Thr	Val	Arg	Val 730	Leu	Gly	Ser	Ser	Lys 735	Arg
Pro	Phe	Gln	Asn 740	Lys	Tyr	Phe	Arg	Asn 745	Met	Glu	Leu	Lys	Leu 750	Gln	Lei
Ala	Ser	Аlа 755	lle	Val	Thr	Leu	Thr 760	Pro	Met	Glu	Gln	Gln 765	Asp	Glu	Tyr
Ser	Glu 770	Asn	Tyr	lle	Leu	Arg 775	Ala	Thr	Thr	He	Gly 780	Gln	Thr	Thr	Leu

Val	Ala	lle	Ala	Lys	Asp	Lys	Met	Gl y	Arg	Lys	Tyr	Thr	Ser	Thr	Pro
785					790					795					800
Arg	His	He	Glu	Val	Phe	Pro	Pro	Phe	Arg	Leu	Leu	Pro	Glu	Lys	Met
				805					810					815	
Thr	Leu	He	Pro	Met	Asn	Met	Met	Gln	Val	Met	Ser	Glu	Gly	Gly	Pro
			820					825					830		
Gln	Pro	Gln	Ser	He	Val	His	Phe	Ser	He	Ser	Asn	Gln	Thr	Val	Ala
		835					840					845			
Val	Val	Asn	Arg	Arg	Gly	Gln	Val	Thr	G1 y	Lys	Ile	Val	Gly	Thr	Ala
	850					855					860				
Val	Val	His	Gly	Thr	He	Gln	Thr	Va1	Asn	Glu	Asp	Thr	Gly	Lys	Val
865					870					875					880
He	Val	Phe	Ser	Gln	Asp	Glu	Val	Gln	11e	Glu	Val	Val	Gln	Leu	Arg
				885					890					895	
Ala	Val	Arg	He	Leu	Ala	Ala	Ala	Thr	Arg	Leu	lle	Thr	Ala	Thr	Lys
			900					905					910		
Met	Pro	Val	Tyr	Val	Met	Gly	Val	Thr	Ser	Thr	Gln	Thr	Pro	Phe	Ser
		915					920					925			
Phe	Ser	Asn	Ala	Asn	Pro	Gly	Leu	Thr	Phe	His	Trp	Ser	Met	Ser	Lys
	930					935					940				
Arg	Asp	Va]	Leu	Asp	Leu	Val	Pro	Arg	His	Ser	Glu	Val	Phe	Leu	Gln
945					950					955					960
Leu	Pro	Val	Glu	His	Asn	Phe	Ala	Met	Val	Val	His	Thr	Lys	Ala	Ala
				965					970					975	
Gly	Arg	Thr	Ser	lle	Lys	Val	Thr	Val	His	Cys	Met	Asn	Ser	Ser	Ser
			980					985					990		
Gly	Gln	Phe	Glu	Gly	Asn	Leu	Leu	Glu	Leu	Ser	Asp	Glu	Val	Gln	He
		995					1000				-	1005			
Leu	Val	Phe	Glu	Lys	Leu	Gln	Leu	Phe	Tyr	Pro	Glu	Cys	Gln	Pro	Glu
	010					1015					1020				
GIn	He	Leu	Met	Pro	Ile	Asn	Ser	Gln	Leu	Lys	Leu	His	Thr	Asn	Arg
1025	5				1030					1035					1040
Glu	Gly	Ala	Ala	Phe	Val	Ser	Ser	Arg	Val	Leu	Lys	Cys	Phe	Pro	Asn
			j	045					1050				į	1055	
Ser	Ser	Val	He	Glu	Glu	Asp	Gly	Glu	Gly	Leu	Leu	Lys	Ala	Gly	Ser
			1060					1065					1070		

lle Ala	Gly	Thr	Ala	Val	Leu	Glu	Val	Thr	Ser	Ile	Glu	Pro	Phe	Gly
	1075					1080					1085			
Val Asn	Gln	Thr	Thr	Ile	Thr	Gly	Val	Gln	Val	Ala	Pro	Val	Thr	Tyr
1090					1095					1100				
Leu Arg	Val	Ser	Ser	Gln	Pro	Lys	Leu	Tyr	Thr	Ala	Gln	Gly	Arg	Thr
1105			]	1110					1115				j	1120
Leu Ser	Ala	Phe	Pro	Leu	Gly	Met	Ser	Leu	Thr	Phe	Thr	Val	Gln	Phe
			1125					1130				-	1135	
Tyr Asn	Ser	He	Gly	Glu	Lys	Phe	His	Thr	His	Asn	Thr	Gln	Leu	Tyr
		1140					1145				-	1150		
Leu Ala	Leu	Asn	Arg	Asp	Asp	Leu	Leu	His	Ile	Gly	Pro	Gly	Asn	Lys
	1155					1160					1165			
Asn Tyr	Thr	Tyr	Met	Ala	Gln	Ala	Val	Asn	Arg	G1y	Leu	Thr	Leu	Val
1170					1175					1180				
Gly Leu	Trp	Asp	Arg	Arg	His	Pro	G1 y	Met	Ala	Asp	Tyr	He	Pro	Val
1185			-	1190					1195				]	1200
Ala Val	Glu	His	Ala	He	Glu	Pro	Asp	Thr	Lys	Leu	Thr	Phe	Val	Gly
			1205					1210					1215	
Asp Ile	He	Cys	Phe	Ser	Thr	His	Leu	Val	Ser	Gln	His	Gly	Glu	Pro
		1220					1225					1230		
Gly Ile	Trp	Met	He	Ser	Ala	Asn	Asn	He	Leu	Gln	Thr	Asp	lle	Val
	1235					1240					1245			
Thr Gly	Val	Gly	Val	Ala	Arg	Ser	Pro	Gly	Thr	Ala	Met	lle	Phe	His
1250					1255				-	1260				
Asp lle	Pro	Gly	Val	Val	Lys	Thr	Tyr	Arg	Glu	Val	Val	Val	Asn	Ala
1265			3	1270					1275				]	1280
Ser Ser	Arg	Leu	Met	Leu	Ser	Tyr	Asp	Leu	Lys	Thr	Тул	Leu	Thr	Asn
			1285					1290					1295	
Thr Leu	Asn	Ser	Thr	Val	Phe	Lys	Leu	Phe	He	Thr	Thr	Gly	Arg	Asn
		1300					1305					1310		
Gly Val	Asn	Leu	Lys	Gly	Phe	Cys	Thr	Pro	Asn	Gln	Ala	Leu	Ala	He
	1315					1320					1325			
Thr Lys	Val	Leu	Leu	Pro	Ala	Thr	Leu	Met	Leu	Cys	His	Va]	Gln	Phe
1330					1335					1340				
Ser Asn	Thr	Leu	Leu	Asp	lle	Pro	Ala	Ser	Lys	Val	Phe	G1n	Val	His
1345				1350					1355					1360

Ser Asp Pho	e Ser M	et Glu	Lys	Gly	Val	Tyr	Val	Cys	He	He	Lys	Val
	13	65				1370				j	1375	
Arg Pro Gli	ı Ser G	lu Glu	Leu	Leu	Gln	Ala	Leu	Ser	Val	Ala	Asp	Thr
	1380			l	385				-	1390		
Ser Val Typ	Gly T	rp Ala	Thr	Leu	Val	Ser	Glu	Arg	Ser	Lys	Asn	Gly
1399	5		1	400					1405			
Met Gln Arg	g lle L	eu lle	Pro	Phe	He	Pro	Ala	Phe	Tyr	He	Asn	Gln
1410		1	1415					1420				
Ser Glu Lei	ı Val L	eu Ser	His	Lys	Gln	Asp	Ile	Gly	Glu	Ile	Arg	Val
1425		1430				-	1435				]	1440
Leu Gly Val	Asp A	rg Val	Leu	Arg	Lys	Leu	Glu	Val	He	Ser	Ser	Ser
	14	45			:	1450				]	1455	
Pro Val Lei	ı Val V	al Ala	Gly	His	Ser	His	Ser	Pro	Leu	Thr	Pro	Gly
	1460			l	1465					1470		
Leu Ala Ile	Tvr S	er Val	Arg	Val	Val	Asn	Phe	Thr	Ser	Phe	G1n	Gln
	/											
147				480					1485			
	5		1	480								
147	5	al Phe	1	480			Cys					
1479 Met Ala Se	5 c Pro V	al Phe	1 11e 1495	480 Asn	lle	Ser	Cys	Val 1500	Leu	Thr	Ser	Gln
1478 Met Ala Sei 1490	5 c Pro V	al Phe	1 11e 1495	480 Asn	lle	Ser Lys	Cys	Val 1500	Leu	Thr	Ser Ala	Gln
Met Ala Ser 1490 Ser Glu Ala	o Pro V a Val V	al Phe I al Val 1510	1 11e 1495 Arg	480 Asn Ala	lle Met	Ser Lys	Cys Asp 1515	Val 1500 Lys	Leu Leu	Thr Gly	Ser Ala	61n Asp 1520
1473 Met Ala Ser 1490 Ser Glu Ala 1505	5 r Pro V a Val V ı Asp S	al Phe I al Val 1510	1 11e 1495 Arg	480 Asn Ala	lle Met Lys	Ser Lys	Cys Asp 1515	Val 1500 Lys	Leu Leu	Thr Gly Ser	Ser Ala	61n Asp 1520
1473 Met Ala Ser 1490 Ser Glu Ala 1505	o Pro V a Val V a Asp S	al Phe I al Val 1510 Ger Ala	lle 1495 Arg Ile	480 Asn Ala Leu	lle Met Lys	Ser Lys Arg	Cys Asp 1515 Phe	Val 1500 Lys Thr	Leu Leu Gly	Thr Gly Ser	Ser Ala Tyr 1535	Gln Asp 1520 Gln
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu	o Pro V a Val V a Asp S	al Phe I al Val 1510 Ger Ala	lle 1495 Arg Ile	480 Asn Ala Leu Ala	lle Met Lys	Ser Lys Arg	Cys Asp 1515 Phe	Val 1500 Lys Thr	Leu Leu Gly Thr	Thr Gly Ser	Ser Ala Tyr 1535	Gln Asp 1520 Gln
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu	Fro V  A Val V  Asp S  15  Leu T	al Phe I al Val 1510 Ger Ala 25 Chr Leu	Ile 1495 Arg Ile Phe	480 Asn Ala Leu Ala	lle Met Lys Val	Ser Lys Arg 1530 Leu	Cys Asp 1515 Phe Ala	Val 1500 Lys Thr	Leu Leu Gly Thr	Thr Gly Ser Ala	Ser Ala Tyr 1535 Ser	Gln Asp 1520 Gln Ile
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu	Fro V  Asp S  15  Leu T  1540  Tyr S	al Phe I al Val 1510 Ger Ala 25 Chr Leu	Ile 1495 Arg Ile Phe	480 Asn Ala Leu Ala	lle Met Lys Val	Ser Lys Arg 1530 Leu	Cys Asp 1515 Phe Ala	Val 1500 Lys Thr Ser	Leu Leu Gly Thr	Thr Gly Ser Ala	Ser Ala Tyr 1535 Ser	Gln Asp 1520 Gln Ile
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu Ile Leu Leu	Fro V  Asp S  Leu T  1540  Tyr S	al Phe I al Val I510 Ger Ala 25 Thr Leu	Ile 1495 Arg Ile Phe	480 Asn Ala Leu Ala Leu 560	lle Met Lys Val 1545 Asn	Ser Lys Arg 1530 Leu Lys	Cys Asp 1515 Phe Ala	Val 1500 Lys Thr Ser	Leu Gly Thr Thr	Thr Gly Ser Ala 1550 Val	Ser Ala Tyr 1535 Ser Pro	Gln Asp 1520 Gln Ile Val
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu Ile Leu Leu Phe Leu Ala 1555	Fro V  Asp S  Leu T  1540  Tyr S	al Phe I al Val 1510 Ser Ala 25 Chr Leu Ser Ala	Ile 1495 Arg Ile Phe	480 Asn Ala Leu Ala Leu 560	lle Met Lys Val 1545 Asn	Ser Lys Arg 1530 Leu Lys	Cys Asp 1515 Phe Ala Ile Pro	Val 1500 Lys Thr Ser	Leu Gly Thr Thr	Thr Gly Ser Ala 1550 Val	Ser Ala Tyr 1535 Ser Pro	Gln Asp 1520 Gln Ile Val
Met Ala Ser 1490 Ser Glu Ala 1505 His Cys Glu Ile Leu Leu Phe Leu Ala 1555 Val Tyr Va	F Pro V  ASP S  15  Leu T  1540  A Tyr S  I Pro T	al Phe I al Val 1510 Ser Ala 25 Shr Leu Ser Ala	Ile 1495 Arg Ile Phe Phe Gly 1575	480 Asn Ala Leu Ala Leu 560	lle Met Lys Val 1545 Asn	Ser Lys Arg 1530 Leu Lys	Cys Asp 1515 Phe Ala Ile Pro	Val 1500 Lys Thr Ser Gln	Leu Gly Thr Thr	Thr Gly Ser Ala 1550 Val	Ser Ala Tyr 1535 Ser Pro	Gln Asp 1520 Gln Ile Val

<210> 3813

<211≻ 623

<212> PRT

<213≻ Homo sapiens

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Leu	Glu	Glu	Val	Lys	Arg	Cys	Met	Glu	Arg	Lys	Asp	Lys	Glu	Lys	Ala
			20					25					30		
His	Leu	Ala	Ser	Gln	Val	Glu	Asn	Leu	Thr	Arg	Glu	Leu	Glu	Asn	G1 y
		35					40					45			
Glu	Lys	Gln	Gln	Leu	Gln	Met	Leu	Asp	Arg	Leu	Lys	Glu	Ile	Gln	Asn
	50					55					60				
His	Phe	Asp	Thr	Cys	Glu	Ala	Glu	Arg	Lys	His	Ala	Asp	Leu	Gln	Ιlе
65					70					75					80
Ser	Glu	Leu	Thr	Λrg	llis	Ala	Glu	Asp	Ala	Thr	Lys	Gln	Ala	Glu	Arg
				85					90					95	
Tyr	Leu	Ser	Glu	Leu	Gln	Gln	Ser	Glu	Ala	Leu	Lys	Glu	Glu	Ala	Glu
			100					105					110		
Lys	Arg	Arg	Glu	Asp	Leu	Lys	Leu	Lys	Ala	Gln	Glu	Ser	lle	Arg	Gln
		115					120					125			
Trp	Lys	Leu	Lys	His	Lys	Lys	Leu	Glu	Arg	Ala	Leu	Glu	Lys	Gln	Ser
	130					135					140				
Glu	Thr	Val	Asp	Glu	Leu	Thr	Gly	Lys	Asn	Asn	Gln	lle	Leu	Lys	Glu
145					150					155					160
Lys	Asp	Glu	Leu	Lys	Thr	Gln	Leu	Tyr	Ala	Ala	Leu	Gln	Gln	He	Glu
	٠			165					170					175	
Asn	Leu	Arg	Lys	Glu	Leu	Asn	Asp	Val	Leu	Thr	Lys	Arg	Ala	Leu	G1n
			180					185					190		
Glu	Glu	Glu	Leu	His	Ser	Lys	Glu	Glu	Lys	Leu	Arg	Asp	lle	Lys	Ser
		195					200					205			
His	Gln	Ala	Asp	Leu	Glu	Leu	Glu	Val	Lys	Asn	Ser	Leu	Asp	Thr	He
	210					215					220				
His	Arg	Leu	Glu	Ser	Glu	Leu	Lys	Lys	Gln	Ser	Lys	He	Gln	Ser	Gln
225					230					235					240
Met	Lys	Val	Glu	Lys	Ala	His	Leu	Glu	Glu	Glu	He	Ala	Glu	Leu	Lys
				245					250					255	
Lys	Ser	Gln	Ala	Gln	Asp	Lys	Ala	Lys	Leu	Leu	Glu	Met	Gln	Glu	Ser
			260					265					270		

He	Lys	Asp	Leu	Ser	Ala	He	Arg	Ala	Asp	Leu	Ala	Asn	Lys	Leu	Ala
		275					280					285			
Glu	Glu	Glu	Arg	Ala	Lys	Lys	Ala	Val	Leu	Lys	Asp	Leu	Ser	Asp	Leu
	290					295					300				
Thr	Ala	Gln	Ala	Lys	Ser	Arg	Asp	Glu	Glu	Thr	Ala	Thr	He	He	Thr
305					310					315					320
Gln	Leu	Lys	Leu	Glu	Arg	Asp	Val	His	Gln	Arg	Glu	Leu	Lys	Asp	Leu
				325					330					335	
Thr	Ser	Ser	Leu	Gln	Ser	Val	Lys	Thr	Lys	His	Glu	Gln	Asn	Ile	Gln
			340					345					350		
Glu	Leu	Met	Lys	His	Phe	Lys	Lys	Glu	Lys	Ser	Glu	Ala	Glu	Asn	His
		355					360					365			
He	Arg	Thr	Leu	Lys	Ala	Glu	Ser	Leu	Glu	Glu	Lys	Asn	Met	Ala	Lys
	370					375					380				
lle	His	Arg	Gly	Gln	Leu	Glu	Lys	Leu	Lys	Ser	Gln	Cys	Asp	Arg	Leu
385					390					395					400
Thr	Glu	Glu	Leu	Thr	Gln	Asn	Glu	Asn	Glu	Asn	Lys	Lys	Leu	Lys	Leu
				405					410					415	
Lys	Tyr	GIn	Cys	Leu	Lys	Asp	Gln	Leu	Glu	Glu	Arg	Glu	Lys	His	Ile
			420					425					430		
Ser	He	Glu	Glu	Glu	His	Leu	Arg	Arg	Met	Glu	Glu	Ala	Arg	Leu	Gln
		435					440					445			
Leu	Lys	Asp	Gln	Leu	Leu	Cys	Leu	Glu	Thr	Glu	Gln	Glu	Ser	He	Leu
	450					455					460				
Gly	Val	He	Gly	Lys	Glu	lle	Asp	Ala	Ala	Cys	Lys	Thr	Phe	Ser	Lys
465					470					475					480
Asp	Ser	Val	Glu	Lys	Leu	Lys	Val	Phe	Ser	Ser	Gly	Pro	Asp	He	His
				485					490					495	
Tyr	Asp	Pro	His	Arg	Trp	Leu	Ala	Glu	Ser	Lys	Thr	Lys	Leu	Gln	Trp
			500					505					510		
Leu	Cys		Glu	Leu	Lys	Glu	Arg	Glu	Asn	Arg	Glu	Lys	Asn	Leu	Arg
		515					520					525			
His	Gln	Leu	Met	Leu	Cys	-	Gln	Gln	Leu	Arg	Asn	Leu	Thr	Glu	Asn
	530					535					540				
Lys	Glu	Ser	Glu	Leu	Gln	Cys	Leu	Phe	Gln	Gln	lle	Glu	Arg	Gln	
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<210> 3814

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3814

Met Asp Ala Glu Leu Leu Gly Arg Glu Leu Arg Leu Phe Leu Phe Ser 1 5 . 10 15

Pro Gln Glu Lys Asn Ser Phe Ser Asp Val Phe Val Val Gly Glu Tyr 20 25 30

Phe Cys His Cys Phe Glu Lys Thr Ser Pro Pro Asn Ser Pro Ser Phe 35 40 45

Leu Gly 11e Ser Phe Leu Lys Trp Lys Ala Phe Asn 11e His Ser Lys 50 55 60

Leu Ala Leu Leu Leu Pro Gln Gly Lys IIe Thr Ser Lys Gln Arg Cys
65 70 75 80

Leu Pro Ser Val Ser Gly Gly Ala Ser Leu Arg Gly Gly Leu Cys Asp \$85\$ 90 95

Pro Leu Pro Gly Gly Gly Asp Gly Gly His Leu Phe Ile Asn Asp Val 100 105 110

Arg Leu Lys Val Thr Glu Pro Phe Leu His Met Pro Leu Cys Arg Glu 115 120 125

Leu Cys Ile Asn Thr Leu Leu Gly Arg Thr Glu Gln Asp Trp Glu Leu 130 135 140

Arg Ala Asn Pro Phe Leu Arg Ala Ser Asn Ser

145 150 155

<210> 3815

<211> 577

<212> PRT

<213> Homo sapiens

<400> 3815

Met Arg Trp Gly Met Pro Pro Gln Asp Ala Phe Thr Thr Gln Trp Leu

1 5 10 15

Val Arg Asp Leu Arg Gly Lys Thr Glu Lys Glu Phe Lys Ala Tyr Val 20 25 30

Ser Leu Phe Met Arg His Leu Cys Glu Pro Gly Ala Asp Gly Ser Glu
35 40 45

Thr Phe Ala Asp Gly Val Pro Arg Glu Gly Leu Ser Arg Gln Gln Val
50 55 60

Leu Thr Arg 11e Gly Val Met Ser Leu Val Lys Lys Lys Val Gln Glu
65 70 75 80

Phe Glu His 11e Asn Gly Arg Trp Ser Met Pro Glu Leu Met Pro Asp 85 90 95

Pro Ser Ala Asp Ser Lys Arg Ser Ser Arg Ala Ser Ser Pro Thr Lys
100 105 110

Thr Ser Pro Thr Thr Pro Glu Ala Ser Ala Thr Asn Ser Pro Cys Thr
115 120 125

Ser Lys Pro Ala Thr Pro Ala Pro Ser Glu Lys Gly Glu Gly 11e Arg 130 135 140

Thr Pro Leu Glu Lys Glu Glu Ala Glu Asn Gln Glu Glu Lys Pro Glu
145 150 155 160

Lys Asn Ser Arg lle Gly Glu Lys Met Glu Thr Glu Ala Asp Ala Pro 165 170 175

Ser Pro Ala Pro Ser Leu Gly Glu Arg Leu Glu Pro Arg Lys 11e Pro 180 185 190

Leu Glu Asp Glu Val Pro Gly Val Pro Gly Glu Met Glu Pro Glu Pro
195 200 205

Gly Tyr Arg Gly Asp Arg Glu Lys Ser Ala Thr Glu Ser Thr Pro Gly

	210					215					220				
Glu	Arg	Gly	Glu	Glu	Lys	Pro	Leu	Asp	Gly	Gln	Glu	His	Arg	Glu	Arg
225					230					235					240
Pro	Glu	Gly	Glu	Thr	Gly	Asp	Leu	Gly	Lys	Arg	Ala	Glu	Asp	Va]	Lys
				245					250					255	
Gly	Asp	Arg	61u	Leu	Arg	Pro	Gly	Pro	Arg	Asp	Glu	Pro	Arg	Ser	Asn
			260					265					270		
Gly	Arg	Arg	Glu	Glu	Lys	Thr	Glu	Lys	Pro	Arg	Phe	Met	Phe	Asn	Ile
		275					280					285			
Ala	Asp	Gly	Gly	Phe	Thr	Glu	Leu	His	Thr	Leu	Trp	Gln	Asn	Glu	Glu
	290					295					300				
Arg	Ala	Ala	He	Ser	Ser	Gly	Lys	Leu	Asn	Glu	He	Trp	His	Arg	Arg
305					310					315					320
His	Asp	Tyr	Trp	Leu	Leu	Ala	Gly	He	Val	Leu	His	G1 y	Tyr	Λlа	Arg
				325					330					335	
Trp	Gln	Asp	He	Gln	Asn	Asp	Ala	Gln	Phe	Ala	Ile	He	Asn	Glu	Pro
			340					345					350		
Phe	Lys	Thr	Glu	Ala	Asn	Lys	Gly	Asn	Phe	Leu	Glu	Met	Lys	Asn	Lys
		355					360					365			
Phe	Leu	Ala	Arg	Arg	Phe	Lys	Leu	Leu	Glu	Gln	Ala	Leu	Val	He	Glu
	370					375					380				
Glu	Gln	Leu	Arg	Arg	Ala	Ala	Tyr	Leu	Asn	Leu	Ser	Gln	Glu	Pro	Ala
385					390					395					400
His	Pro	Ala	Met		Leu	His	Ala	Arg	Phe	Ala	Glu	Ala	Glu	Cys	Leu
				405					410					415	
Ala	Glu	Ser		Gln	His	Leu	Ser		Glu	Ser	Leu	Ala	Gly	Asn	Lys
_			420		_			425					430		
Pro	Ala		Ala	Val	Leu	His		Val	Leu	Asn	Gln		Glu	Glu	Leu
		435					440	<b></b>				445			_
Leu		Asp	Met	Lys	Ala	Asp	Val	Thr	Arg	Leu		Ala	Thr	Leu	Ser
	450	D	D		. 1	455			6.1		460	0.1		0	
	116	Pro	Pro	116		Ala	Arg	Leu	61n		Ser	Glu	Arg	Ser	
465	C	Δ	1	41.	470	,	C 1	TI	C1	475	11.	Б	T)	D	480
Leu	ser	Arg	Leu		ser	Lys	61 y	ınr		rro	1115	rro	ınr		нта
Tyr	Pro	Pro	GLv	485 Pro	Tun	Ala	The	Dro	490 Pro	C1 v	Tur	C1	A 1 a	495	Dh.a
a v I	1 ( ( )	1 ( ( )	VIIV	1 ( ( )	1 V I	/1 / 21	1111	1 (1)	1 1 1 1 1	111 V	1 1/1	TILV	14 1 24	M 1 71	L. [ ) t-7

Ser Ala Ala Pro Val Gly Ala Leu Ala Ala Ala Gly Ala Asn Tyr Ser Gln Met Pro Ala Gly Ser Phe Ile Thr Ala Ala Thr Asn Gly Pro Pro Val Leu Val Lys Clu Lys Glu Met Val Gly Ala Leu Val Ser Asp Gly Leu Asp Arg Lys Glu Pro Arg Ala Gly Glu Val Ile Cys Ile Asp Asp <210> 3816 <211> 143 <212> PRT  $\langle 213 \rangle$  Homo sapiens <400> 3816 Met Thr Ser Ala Lys Thr Leu Arg Gly Arg His Ser Ser Thr Lys Thr Leu Phe Pro Ser Glu Val Pro Phe Thr Gly Thr Gly Val Arg Thr Ser Pro Cys Leu Leu Gly Ala 11e Pro Phe Asn Leu Gln Gln Pro Leu Val Ser Val His Asn Ala Asn Glu Val Arg Val Ala Ser Pro Gln Ala Asn Asn Phe Pro Gln lle Ala Ala Arg Cys Gly Pro Ala Lys Ser Gln Gly Ala Ala Ile Ser Lys Gln Ser Pro Pro Val Leu Glu Gly Val Cys Arg Asp Ala Ser Gly Glu Arg Pro Gly Pro Gly Ala Gly Leu Gln Leu Trp Asp Lys Leu Leu Ser Gly Pro Gly Ala Thr Gln Arg Arg Gln Ala Ala

Val Gln Val Lys Pro Ile Gln His Leu Ala Pro Cys Leu Gln Ala 130 135 140

<210> 3817

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3817

Met Lys Tyr Phe Ala Pro Ser Arg Gly Pro Gln Leu Ser Leu Gln Val 1 5 10 15

Leu Leu Trp Arg Leu Asn Leu Pro Pro Val Ser Arg Ser Ser Gln Leu 20 25 30

Ser Leu Leu Ser Phe Leu Gly Arg Trp Asn Phe Leu Arg Pro Arg Arg
35 40 45

Pro Pro Thr Leu Pro Pro Glu Ser Ser lle Glu Ser Val Ala Gln Thr 50 55 60

Pro Leu Asn His Glu Val Thr Val Gln Thr Gln Gly Glu Asp Gln Ala 65 70 75 80

His Tyr Thr Leu Pro Ser Ile Thr Val Lys Pro Ala Asp Val Glu Ile  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Ser Ile Thr Ser Glu Pro Thr Thr Asp Thr Asp Ser Ser Pro Ala Gl<br/>n 100 105 110

Gln Ala Ala Pro Asn Gln His Pro Glu Gln Val 115 120

<210> 3818

<211> 113

<212> PRT

<213≻ Homo sapiens

<400> 3818

Met Ala Gly Gly Arg Pro Ala Asn Lys Ala Pro Gly Thr Gly Leu Gly

1 5 10 15 Gly Thr Pro Gly Val Pro Ser Trp Val Gly Trp Thr Gly Pro Trp Phe 25 Ala Gly Ser Cys Ala Ala Met Arg Leu Leu Ala Gly Gly Ile Arg Gln 40 Pro Pro Ala Ser Leu Ala Gln Val Leu Asp Ser Ile Lys Gly Gln Ser 55 Val Phe Phe Met Leu Thr Ser Met Arg Lys Pro Asn Ala Ser Phe Ser 70 65 75 Glu Ser Ala Gln Ile Tyr Ser Ala Glu Tyr Arg Phe Val Gln Thr Thr 85 90 Ala Ala Leu Gln Phe Ile Val Thr Ser Lys Gly Lys Gly Gln Lys Asn 105 110 He

<210> 3819

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3819

Met Trp His Val Thr Ala Tyr Phe Ser Leu Leu Leu Arg Ala Pro Ser 1 5 10 15
Glu Gly Ile Gln Ile Pro Val Ile His Thr Ile Glu Val Lys Ser Phe

10 Gly 11e Gln 11e Pro Val 11e His Thr 11e Glu Val Lys Ser Phe
20 25 30

Gln 11e Arg Lys Ala Gln Phe Phe Leu Gln Arg Cys Leu Phe 11e Phe 35 40 45

Ile Val Ser lle Ser Phe Lys Asn Leu His Glu Glu Ser Ile Cys Phe
50 55 60

Cys Leu Lys Glu Asn Ser Pro Gly Phe Glu Leu Asn Ser Ala Leu Ala 65 70 75 80

Arg Leu Tyr Pro Phe Pro Lys Glu Lys Ser Lys Val Ser Thr Tyr Ser 85 90 95

Lys Arg Met Ser Pro Gly Phe Ser IIe Leu Glu Ser Leu IIe Ser Pro

Thr Ile Leu Glu Arg Ser Lys <210> 3820 <211> 358 <212> PRT <213> Homo sapiens <400> 3820 Met Asn Thr Ala Asn Ser Leu Cys Leu Gly Gly Thr Pro Ala Ser Ala Ser Ser Ser Ser Ser Arg Ala Ala Pro Leu Val Thr Ser Gly Lys Ala Pro Pro Asn Leu Pro Gln Gly Val Pro Pro Leu Leu His Asn Gln Tyr Leu Val Gly Pro Gly Gly Leu Leu Pro Ala Tyr Pro Ile Tyr Gly Tyr Asp Glu Leu Gln Met Leu Gln Ser Arg Leu Pro Val Asp Tyr Tyr Gly Ile Pro Phe Ala Ala Pro Thr Ala Leu Ala Ser Arg Asp Gly Ser Leu Ala Asn Asn Pro Tyr Pro Gly Asp Val Thr Lys Phe Gly Arg Gly Asp Ser Ala Ser Pro Ala Pro Ala Thr Thr Pro Ala Gln Pro Gln Gln Ser Gln Ser Gln Thr His His Thr Ala Gln Gln Pro Phe Val Asn Pro Ala Leu Pro Pro Gly Tyr Ser Tyr Thr Gly Leu Pro Tyr Tyr Thr Gly Met 

Pro Ser Ala Phe Gln Tyr Gly Pro Thr Met Phe Val Pro Pro Ala Ser

Ala Lys Gln His Gly Val Asn Leu Ser Thr Pro Thr Pro Pro Phe Gln

Gln Ala Ser Gly Tyr Gly Gln His Gly Tyr Ser Thr Gly Tyr Asp Asp

		195					200					205			
Leu	Thr	Gln	Gly	Thr	Ala	Ala	Gly	Asp	Tyr	Ser	Lys	Gly	Gly	Tyr	Ala
	210					215					220				
Gly	Ser	Ser	Gln	Ala	Pro	Asn	Lys	Ser	Ala	Gly	Ser	Gly	Pro	Gly	Lys
225					230					235					240
Gly	Val	Ser	Val	Ser	Ser	Ser	Thr	Thr	Gly	Leu	Pro	Asp	Met	Thr	G1 y
				245					250					255	
Ser	Va]	Tyr	Asn	Lys	Thr	Gln	Thr	Phe	Asp	Lys	Gln	Gly	Phe	His	Ala
			260					265					270		
Gly	Thr	Pro	Pro	Pro	Phe	Ser	Leu	Pro	Ser	Val	Leu	Gly	Ser	Thr	Gly
		275					280					285			
Pro	Leu	Ala	Ser	Gly	Ala	Ala	Pro	Gly	Tyr	Ala	Pro	Pro	Pro	Phe	Leu
	290					295					300				
His	He	Leu	Pro	Ala	His	Gln	Gln	Pro	His	Ser	Gln	Leu	Leu	His	His
305					310					315					320
His	Leu	Pro	Gln	Asp	Ala	Gln	Ser	Gly	Ser	Gly	Gln	Arg	Ser	Gln	Pro
				325					330					335	
Ser	Ser	Leu	Gln	Pro	Lys	Ser	Gln	Ala	Ser	Lys	Pro	Ala	Tyr	Gly	Asn
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Ser	Pro	Tyr	Trp	Thr	Asn										
		355													
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<213	3> Ho	omo s	sapie	ens											

Met Gly Pro Lys His Val Leu Arg Gln Pro Gly Pro Ser Glu Arg His 1 5 10 15 15

His Pro Glu Val Pro Ala Trp Thr Pro Arg Ala Gly Pro Pro Cys Trp 20 25 30

Leu Cys Arg Gln Arg Trp Gly Trp Thr Leu His Pro Pro Gly Arg Gly Arg Gly 35 40 45

Cys Pro Ala Leu Leu Leu Ser Glu Pro Arg Met Ala Ala Gln Val Thr

<400> 3821

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Pro	Asp	Gln	Gln	Pro	Cys	He	Glu	Pro	Pro	Pro	Ser	Ser	Leu	Leu	Tyr
				85					90					95	
Gln	Asn	Glu	Met	Leu	Glu	Glu	Gly	Gln	Glu	Tyr	Ala	Val	Met	Leu	Tyr
			100					105					110		
Thr	Trp	Arg	Ser	Cys	Ser	Arg	Ala	Ile	Pro	Gln	Val	Arg	Cys	Asn	Glu
		115					120					125			
Gln	Pro	Asn	Arg	Val	Glu	Ile	Tyr	Glu	Lys	Thr	Val	Glu	Val	Leu	Glu
	130				•	135					140				
Pro	Glu	Val	Thr	Lys	Leu	Met	Asn	Phe	Met	Tyr	Phe	Gln	Arg	Asn	Ala
145					150					155					160
He	Glu	Arg	Phe	Cys	Gly	Glu	Val	Arg	Arg	Leu	Cys	His	Ala	Glu	Arg
				165					170					175	
Arg	Lys	Asp	Phe	Val	Ser	Glu	Ala	Tyr	Leu	He	Thr	Leu	Gly	Lys	Phe
			180					185					190		
Ile	Asn	Met	Phe	Ala	Val	Leu	Asp	Glu	Leu	Lys	Asn	Met	Lys	Cys	Ser
		195					200					205			
Val	Lys	Asn	Asp	His	Ser	Ala	Tyr	Lys	Arg	Ala	Ala	Gln	Phe	Leu	Arg
	210					215					220				
Lys	Met	Ala	Asp	Pro	Gln	Ser	He	Gln	Glu	Ser	Gln	Asn	Leu	Ser	Met
225					230					235					240
Phe	Leu	Ala	Asn	His	Asn	Lys	He	Thr	Gln	Ser	Leu	Gln	Gln	Gln	Leu
				245					250					255	
Glu	Val	lle	Ser	Gly	Tyr	Glu	Glu	Leu	Leu	Ala	Asp	He	Val	Asn	Leu
			260					265					270		
Cys	Val		Tyr	Tyr	Glu	Asn		Met	Tyr	Leu	Thr	Pro	Ser	Glu	Lys
		275					280					285			
His		Leu	Leu	Lys	Val	Met	Gly	Phe	Gly	Leu		Leu	Met	Asp	G1 y
	290					295					300				
	Val	Ser	Asn	He		Lys	Leu	Asp	Ala		Lys	Arg	He	Asn	
305					310					315					320
Ser	Lys	He	Asp		Tyr	Phe	Lys	Gln		GIn	Val	Val	Pro		Phe
0.1			0.7	325	0.7				330					335	
Gly	Asp	Met	GIn	11e	GIu	Leu	Ala	Arg	Tyr	He	Lys	Thr	Ser	Λla	His

			340					345					350		
Tyr	Glu	Glu	Asn	Lys	Ser	Arg	Trp	Thr	Cys	Thr	Ser	Ser	Gly	Ser	Ser
		355					360					365			
Pro	Gln	Tyr	Asn	Ile	Cys	Glu	Gln	Met	11e	Gln	He	Arg	Glu	Asp	His
	370					375					380				
Met	Arg	Phe	He	Ser	Glu	Leu	Ala	Arg	Tyr	Ser	Asn	Ser	Glu	Val	Va]
385					390					395					400
Thr	Gly	Ser	Gly	Arg	Gln	Glu	Ala	Gln	Lys	Thr	Asp	Ala	Glu	Tyr	Arg
				405					410					415	
Lys	Leu	Phe	Asp	Leu	Ala	Leu	Gln	Gly	Leu	Gln	Leu	Leu	Ser	Gln	Trp
			420					425					430		
Ser	Ala	His	Val	Met	Glu	Val	Tyr	Ser	Trp	Lys	Leu	Va]	His	Pro	Thr
		435					440					445			
Asp	Lys	Tyr	Ser	Asn	Lys	Asp	Cys	Pro	Asp	Ser	Ala	Glu	Glu	Tyr	Glu
	450					455					460				
Arg	Ala	Thr	Arg	Tyr	Asn	Tyr	Thr	Ser	Glu	Glu	Lys	Phe	Ala	Leu	Val
465					470					475					480
Glu	Val	Ile	Ala	Met	Ile	Lys	Gly	Leu	Gln	Val	Leu	Met	Gly	Arg	Met
				485					490					495	
Glu	Ser	Val	Phe	Asn	His	Ala	Ile	Arg	His	Thr	Val	Tyr	Ala	Ala	Leu
			500					505					510		
Gln	Asp	Phe	Ser	Gln	Val	Thr	Leu	Arg	Glu	Pro	Leu	Arg	Gln	Ala	He
		515					520					525			
Lys	Lys	Lys	Lys	Asn	Val	lle	Gln	Ser	Val	Leu	Gln	Ala	He	Arg	Lys
	530					535					540				
Thr	Val	Cys	Asp	Trp	Glu	Thr	Gly	His	Glu	Pro	Phe	Asn	Asp	Pro	Ala
545					550					555					560
Leu	Arg	Gly	Glu	Lys	Asp	Pro	Lys	Ser	Gly	Phe	Asp	He	Lys	Val	Pro
				565					570					575	
Arg	Arg	Ala	Val	Gly	Pro	Ser	Ser	Thr	Gln	Leu	Tyr	Met	Val	Arg	Thr
			580					585					590		
Met	Leu	G] u	Ser	Leu	Ile	Ala	Asp	Lys	Ser	Gly	Ser		Lys	Thr	Leu
		595					600					605			
Arg		Ser	Leu	Glu	Gly		Thr	11e	Leu	Asp		Glu	Lys	Phe	His
	610				_	615					620				
Ara	Glu	Ser	Phe	Phe	Tyr	Thr	Hic	len	He	Asn	Phe	Ser	Glu	Thr	Len

625					630					635				•	640
Gln	Gln	Cys	Cys	Asp	Leu	Ser	Gln	Leu	Trp	Phe	Arg	Glu	Phe	Phe	Leu
				645					650					655	
Glu	Leu	Thr	Met	Gly	Arg	Arg	lle	Gln	Phe	Pro	He	Glu	Met	Ser	Met
			660					665					670		
Pro	Trp	lle	Leu	Thr	Asp	His	He	Leu	Glu	Thr	Lys	Glu	Ala	Ser	Met
		675					680					685			
Met	Glu	Tyr	Val	Leu	Tyr	Ser	Leu	Asp	Leu	Tyr	Asn	Asp	Ser	Ala	His
	690					695					700				
Tyr	Ala	Leu	Thr	Arg	Phe	Asn	Lys	Gln	Phe	Leu	Tyr	Asp	Glu	Ile	Glu
705					710					715					720
Ala	Glu	Val	Asn	Leu	Cys	Phe	Asp	Gln	Phe	Val	Tyr	Lys	Leu	Ala	Asp
				725					730					735	
Gln	He	Phe	Ala	Tyr	Tyr	Lys	Val	Met	Ala	Gly	Ser	Leu	Leu	Leu	Asp
			740					745					750		
Lys	Arg	Leu	Arg	Ser	Glu	Cys	Lys	Asn	Gln	Gly	Ala	Thr	lle	His	Leu
		755					760					765			
Pro	Pro	Ser	Asn	Arg	Tyr	Glu	Thr	Leu	Leu	Lys	Gln	Arg	His	Val	Gln
	770					775					780				
Leu	Leu	Gly	Arg	Ser	Ile	Asp	Leu	Asn	Arg	Leu	Пe	Thr	Gln	Arg	Val
785					790					795					800
Ser	Ala	Ala	Met	Tyr	Lys	Ser	Leu	Glu	Leu	Ala	Пe	Gly	Arg	Phe	Glu
				805					810					815	
Ser	Glu	Asp	Leu	Thr	Ser	lle	Val	Glu	Leu	Asp	Gly	Leu	Leu	Glu	lle
			820					825					830		
Asn	Arg	Met	Thr	His	Lys	Leu	Leu	Ser	Arg	Tyr	Leu	Thr	Leu	Asp	Gly
		835					840					845			
Phe	Asp	Ala	Met	Phe	Arg	Glu	Ala	Asn	His	Asn	Val	Ser	Ala	Pro	Tyr
	850					855					860				
Gly	Arg	He	Thr	Leu	His	Val	Phe	Trp	Glu	Leu	Asn	Tyr	Asp	Phe	Leu
865					870					875					880
Pro	Asn	Tyr	Cys	Tyr	Asn	G]y	Ser	Thr	Asn	Λrg	Phe	Val	Arg	Thr	Val
				885					890					895	
Leu	Pro	Phe		Gln	G1u	Phe	Gln	Arg	Asp	Lys	Gln	Pro	Asn	Ala	Gln
			900					905					910		

Pro	Gln	Tyr	Leu	His	Gly	Ser	Lys	Ala	Leu	Asn	Leu	Ala	Tyr	Ser	Ser
		915					920					925			
He	Tyr	Gly	Ser	Tyr	Arg	Asn	Phe	Val	Gly	Pro	Pro	His	Phe	Gln	Val
	930					935					940				
He	Cys	Arg	Leu	Leu	Gly	Tyr	Gln	Gly	lle	Ala	Val	Val	Met	Glu	Glu
945					950					955					960
Leu	Leu	Lys	Val	Val	Lys	Ser	Leu	Leu	Gln	Gly	Thr	He	Leu	Gln	Tyr
				965					970					975	
Val	Lys	Thr	Leu	Met	Glu	Val	Met	Pro	Lys	Ile	Cys	Arg	Leu	Pro	Arg
			980					985					990		
His	Glu	Tyr	Gly	Ser	Pro	Gly	lle	Leu	G} u	Phe	Phe	His	His	Gln	Leu
		995					1000					1005			
Lys	Asp	He	Val	Glu	Tyr	Ala	Glu	Leu	Lys	Thr	Val	Arg	Phe	Gln	Asn
1	010					1015					1020				
Leu	His	Ala	Ala	Pro	Phe	Gln	Asn	He	Leu	Pro	Arg	Val	His	Val	Lys
1025	5				1030					1035				]	1040
Glu	Gly	Glu	Arg	Leu	Asp	Ala	Lys	Met	Lys	Arg	Leu	Glu	Ser	Lys	Tyr
				1045					1050					1055	
Ala	Pro	Leu	His	Leu	Val	Pro	Leu	Ile	Glu	Arg	Leu	Gly	Thr	Pro	Gln
			1060					1065					1070		
Gln	He	Ala	He	Ala	Arg	Glu	Gly	Asp	Leu	Leu	Thr	Lys	Glu	Arg	Leu
		1075					1080					1085			
Cys	Cys	Gly	Leu	Ser	Met	Phe	Glu	Val	He	Leu	Thr	Arg	Ile	Arg	Ser
]	090					1095					1100				
Phe	Leu	Asp	Asp	Pro	Ile	Trp	Arg	Gly	Pro	Leu	Pro	Ser	Asn	Gly	Val
1105	5				1110					1115				]	1120
Met	His	Val	Asp	Glu	Cys	Val	Glu	Phe	His	Arg	Leu	Trp	Ser	Ala	Met
				1125					1130					1135	
Gln	Phe	Val	Tyr	Cys	Ile	Pro	Val	Gly	Thr	His	Glu	Phe	Thr	Val	G1u
			1140					1145					1150		
Gln	Cys	Phe	Gly	Asp	Gly	Leu	His	Trp	Ala	Gly	Cys	Met	He	He	Val
		1155					1160					1165			
Leu	Leu	Gly	Gln	Gln	Arg	Arg	Phe	Ala	Val	Leu	Asp	Phe	Cys	Tyr	His
1	170					1175					1180				
Leu	Leu	Lys	Val	Gln	Lys	His	Asp	Gly	Lys	Asp	Glu	lle	lle	Lys	Asn
1185	5				1190				-	1195					1200

Val Pro Leu Lys Lys Met Val Glu Arg Ile Arg Lys Phe Gln Ile Leu Asn Asp Glu Ile Ile Thr Ile Leu Asp Lys Tyr Leu Lys Ser Gly Asp Gly Glu Gly Thr Pro Val Glu His Val Arg Cys Phe Gln Pro Pro Ile His Gln Ser Leu Ala Ser Ser 

<210> 3822

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3822 Met Gly Pro Leu Trp Tyr Thr Gln Ser Ile Thr Asp Arg Asn Met Thr Glu Met Phe Pro Lys His Thr Gly Cys Ser Val Gly Ser Ala Ala Ala Pro Ala Thr Leu Glu Thr Leu Val Ala Leu Gly Thr Thr Arg Ser His Ala Arg Pro Pro Leu Cys Gln Glu Ser Gln His Thr Glu Glu Leu Ala Ile Arg His Gln His Gln Ala Pro Ala Leu His Val Gly Leu Ser Asp Pro Asp Val Thr Glu Asn Pro Ser Asp Pro Ala Ser Gly Ala Ala Cys Thr Cys Phe Leu His Asn Ser Pro Gln Ala Ala Leu Pro Gly Ala Gly Lys His Cys Pro Ser Gly Val Ala Asn Ser Arg Leu Cys Leu Ser Gln

Asn His Tyr Ser Asp His Pro Asp Ala Asn Pro Arg Tyr lle Ile His 

Leu Ser Asp Pro Phe Cys Leu His Leu Trp Ser Thr Ala His Gln Val  Glu Ser Ser Glu Met Thr 

<210> 3823 <211> 679 <212> PRT <213> Homo sapiens

<400> 3823 Met Leu Ser Met Glu Asn Val Gly Asn Tyr Gln Gly Tyr Ser Gln Glu Thr Ala Pro Lys Asp His Leu Leu His Asp Pro Glu Thr Ser Ser Asp Glu Asp Leu Arg Ser Asn Ser Glu Arg Asp Leu Glu Thr His Met Met His Leu Ser Gly Asn Asp Ser Gly Val Arg Leu Gly Gln Lys Gln Leu Glu Asn Ala Leu Thr Val Arg Leu Ser Lys Lys Phe Glu Lys Ile Asn Glu Gly Arg Met Pro Gly Thr Val His Ser Ser Trp His Ser Val Lys Gln Thr Met Ser Leu Pro Glu Lys Ser Gln Ser Gln 11e Lys His Gln

Asn Leu Val Ala Leu Val Ser Glu Asp His Cys Val Asp Thr Ser Gln Glu lle Ser Phe Leu Gly Ser Asn Lys Gln Lys Met Leu Glu Ala His lle Lys Thr Phe Arg Met Arg Met Leu Trp Gly Leu Pro Cys Lys Val Leu Glu Ser Ile Glu Ile Phe Lys Ser Glu Glu Asp Ile Ser Asn Ser Phe Ser His Phe Tyr Leu Pro Ser Ser Ala Ser Phe Ile Ser Gln Gly Asp Ser Lys Asp Gly Val Ser Lys Ser Cys Arg Arg Ser Thr Phe Gln 

Gly	Glu	Lys	Leu	Gly	Thr	Thr	Ser	Ser	Val	Pro	Val	Leu	Asn	His	Pro
	210					215					220				
Gln	Pro	Val	Ser	Ser	Pro	He	Gly	Lys	G1u	G1 y	Gln	G1 y	Thr	Leu	Arg
225					230					235					240
Arg	Gln	Phe	Ser	Asp	He	Asp	His	Asp	Leu	He	Glu	Thr	Asp	Ala	Lys
				245					250					255	
Asp	Gly	Ala	Ser	Thr	Pro	Leu	Arg	Arg	Gly	Thr	Thr	Tyr	Phe	Gln	Gly
			260					265					270		
Glu	Lys	Leu	Glu	Thr	Thr	Ser	Ser	Phe	Ser	Ile	Leu	Gly	His	Pro	His
		275					280					285			
Leu	Val	Thr	Ser	Pro	Val	Asp	Gln	Glu	Lys	Gln	Gly	Thr	Leu	Arg	Arg
	290					295					300				
Glu	Phe	Ala	Asp	Thr	Asp	Glu	Asp	Leu	Thr	Glu	Ser	Val	Trp	Thr	Thr
305					310					315					320
Glu	Asp	Gly	Arg	G1n	Thr	Phe	Leu	Pro	Pro	Thr	Tyr	Ser	lle	lle	Asp
				325					330					335	
Glu	Val	Ser	Gln	Lys	Gln	Thr	Ile	Leu	Ala	Ser	Arg	Cys	Ser	Ala	Glu
			340					345					350		
Leu	Pro	Ile	Leu	Gln	Ala	Gly	Val	Gly	Arg	Asp	Ser	Arg	Asp	Lys	Arg
		355					360					365			
Glu	Ser	Ala	Ser	Asn	Asn	Val	Asn	Arg	Leu	Gln	Gly	Ser	Gly	Lys	Thr
	370					375					380				
Phe	Pro	Val	Thr	Asn	Gly	Ser	Lys	Glu	Met	Phe	Lys	Glu	Glu	Glu	He
385					390					395					400
Cys	Thr	Leu	Gln	Ser	Gln	Thr	Arg	Asn	Asn	Leu	Thr	Thr	Ser	Lys	Ser
				405					410					415	
Gly	Ser	Cys	Leu	Val	Thr	Asn	Val	Lys	Arg	Ser	Thr	Ser	His	Glu	Thr
			420					425					430		
Glu	Пе	Phe	Pro	Pro	Arg	lle	Ser	Val	Pro	Gln	Thr	Pro	Lys	Ser	Ser
		435					440					445			
Tyr	Leu	Lys	Asn	Gln	Met	Leu	Ser	Gln	Leu	Lys	Leu	Val	Gln	Arg	Lys
	450					455					460				
His	Ser	Gln	Pro	Gln	Ser	His	Phe	Thr	Gly	Met	Ser	Leu	Ala	Leu	Asp
465					470					475					480
Asn	Leu	Ser	Ser	Lys	Asp	Leu	Leu	Thr	His	Ala	Gln	Gly	He	Ser	Asn
				485					490					495	

Gln Asp Leu Gly Thr Ser Gln Val Leu His Val His Leu Glu Val Arg Gly Ile Arg Val Ala Gln Gln Gln Glu His Arg Val Pro Thr His Val Leu Gln Lys Cys Gln Val Lys Asn Phe Ser Pro Ala Ala Lys Arg Val Ser Pro Leu Arg Pro Asn Gly Gly Glu Leu Gly Gly Gly Asp Ala Gly Leu Gly Thr Ser Gln Leu Thr Arg Lys Ser Leu Pro Val His Asn Lys Ala Ser Gly Glu Val Pro Gly Ser Lys Ser Ser Pro Thr Leu Lys Thr Gln Pro Pro Ser Glu Asn Leu Phe Arg Lys Trp Met Gln Thr Leu Leu Gln Trp Phe Asn Lys Pro Ser Ile Met Cys Glu Glu Gln Glu Ser Ser Trp Glu Lys Gly Ser Ser Leu Ser Ser Ser Val Gln Asn Arg Ser Arg Val Thr Ser Arg Ala Ala Phe Thr Gly Ala Thr Glu Ala Gln Lys Ile Arg Lys Asp Thr Gly Glu Phe Leu Glu Glu Lys Leu Gly His Ser His Gly lle Asp lle Thr Cys Pro 

<210> 3824

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3824

Met Thr Thr Lys Thr Met Ser Gln Tyr Cys Gln Gln Leu Asn Gly Leu

1 5 10 15

Lys Ala Glu Asn Thr Arg Leu Asn Ser Lys Leu Glu Lys Glu Glu His
20 25 30

His Thr Asp Gly Leu Glu Ala Glu Val Glu Phe Phe His Ser Arg Leu 35 40 Ala Ala Ala Ile Asn Glu His Asn Glu Ser Leu Glu Thr Lys Asp Leu 50 55 60 Glu Leu Val Leu Gln Arg Ala His Asn Phe Ser Val His Lys Lys Ile 70 75 Ser Ser Thr Val Ser Gln Leu Lys Asp Lys Asn Glu Leu Leu Thr Glu 85 90 Gln Phe Ser Lys Ala Gln Met Lys Phe Asn Thr Leu Lys Gly Lys Leu 100 105 110 His Glu 11e Arg Asp Ala Leu Arg Glu Lys Thr Leu Ala Leu Glu Ser 120 Val Gln Met Asp Gln Arg Gln Ala Gln His Arg Ile Lys Glu Met Glu 130 140 Gln Ile His Pro Asn Glu Glu Thr Lys Gly Val Asp Pro Pro Glu Ser 145 150 155 Thr Thr Val

<210> 3825

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3825

Met Gln Ala Pro Phe Gly Ala Arg Asn Ala Arg Glu Ile Cys Leu Thr
1 5 10 15

Lys Arg Glu Pro Gly Gly Asn Ile Gln Asp Asn Gly Lys Lys Ala Ser 20 25 30

Lys Ile Phe Gln Lys Ser Leu Gly Gln Pro Phe Pro Ser Gln Ala Gln
35 40 45

Arg Pro Lys Ser Lys Glu Trp Phe Gln Gly Pro Gly Leu Glu His His . 50 55 60

Cys Pro Val Gln Pro Trp Asp Ala Ala Pro Cys lle Gln Thr Ala Thr 65 70 75 80

<210> 3826

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3826

Met Asp Met Asp Phe Pro Asn Thr His Ala Gln Ser Gln Val Ser Pro

1 5 10 15

Arg Gln Pro Met Arg Met Ala Leu Gly Ser Leu Asp Phe Ser Ser Asp 20 25 30

Gly Arg Ala Leu Asn Pro Lys Val Leu Val Gly Gl<br/>n Val Gly Gly Phe \$35\$ 40 45

Leu Val Arg Thr Arg Gly Gly Thr Ser Thr Gly Met Gly Asp Ala Gly 50 55 60

Ser Arg Cys Pro Ser Asp Ala Val Val Arg Thr Leu Leu Thr Gln Leu 65 70 75 80

Gln Arg Arg Ala Arg Gly Thr Leu Ala His Asp Ala Pro Val Met Pro
85 90 95

Trp Leu Gly Arg Arg Ser Arg Ser Cys Ser Ala Glu His Gly Gly Arg
100 105 110

Trp Leu Thr Met Pro Gln

115

<210> 3827 <211> 151 <212> PRT <213> Homo sapiens <400> 3827 Met Asp Gly Val Asp Ala Arg Val Ser Arg Arg Arg Gly Trp His Pro 5 10 15 His Glu Ala Ser His Thr Pro Met Gly Val Gly Ile Trp Arg His Ala 25 30 20 Trp Gly Gly Asp Ala Leu Trp Arg His Lys Ala Gly Ala Ser Arg Ala 40 Pro Arg Ser Trp Thr Gly Pro Gln Gly Val Leu Gln Leu Lys Arg Glu 50 55 Gly Lys Lys Ala His Glu Pro Val Ala Ser Gly Ala Asp Phe Pro Thr 75 Gln Gly Leu Ser Leu Cys Pro Trp Gly Pro Arg Asn Phe Pro Gly Asn 90 Leu His Leu Ala Gln 11e Tyr Pro Leu Ser Pro Pro Thr Leu Ala Val 100 105 110 Ala Ser Gln Glu Ala Pro Ala Thr Val Leu Lys Thr Lys Phe Ser Ser 120 125 Val 11e Pro Leu Cys Ser Ala Cys Val 11e His Glu Thr Gly Lys Ser 130 135 140 Pro Gly Leu Gln Arg Lys Lys 145 150

<210> 3828

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3828

Met Ala Thr Ala Ser Ala Phe Ser Val Arg Glu Pro Arg Ala Gln Pro

1 5 10 15

Asn Pro Ala Gly Gly Asn Ser Trp Val Pro Phe Pro Tyr Phe Arg Ser 20 25 Leu Gly Cys Ala Val Val Thr Ser Glu Pro Gly Cys Val Leu Thr Ser 35 40 45 Asp Lys Cys Leu Ser Leu Gly His Glu Arg Gly Val Gly Ser Ala Val 55 Gln Phe Gln Gly Gly Phe Trp Leu Ile Thr Phe Ser Trp Val Phe Ala 70 75 80 Glu Ser Gly Gly Asn Leu Cys Pro Pro Glu Thr Arg Asp Gln Gly Arg 85 90 Ser Tyr Gly Arg Gly Asp Ala Ala Arg Ala Val Ala Ser Ser Ala Ser 105 Ser Val Arg Val Arg Ser Arg Leu Ala Pro Gly Pro Pro Gly Ala Gln 115 120 125 Gly Leu Glu 130

⟨210⟩ 3829

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3829

Met Ala Asn Tyr Tyr Glu Val Leu Gly Val Gln Ala Ser Ala Ser Pro 1 5 10 15

Glu Asp Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Arg Trp His Pro 20 25 30

Asp Lys Asn Pro Asp Asn Lys Glu Glu Ala Glu Lys Lys Phe Lys Leu 35 40 45

Val Ser Glu Ala Tyr Glu Val Leu Ser Asp Ser Lys Lys Arg Ser Leu 50 55 60

Tyr Asp Arg Ala Gly Cys Asp Ser Trp Arg Ala Gly Gly Gly Ala Ser 65 70 75 80

Thr Pro Tyr His Ser Pro Phe Asp Thr Gly Tyr Thr Phe Arg Asn Pro
85 90 95

Glu Asp Ile Phe Arg Glu Phe Phe Gly Gly Leu Asp Pro Phe Ser Phe 100 105 Glu Phe Trp Asp Ser Pro Phe Asn Ser Asp Arg Gly Gly Arg Gly His 115 120 125 Gly Leu Arg Gly Ala Phe Ser Ala Gly Phe Gly Glu Phe Pro Ala Phe 135 140 Met Glu Ala Phe Ser Ser Phe Asn Met Leu Gly Cys Ser Gly Gly Ser 150 155 160 His Thr Thr Phe Ser Ser Thr Ser Phe Gly Gly Ser Ser Ser Gly Ser 165 170 175 Ser Gly Phe Lys Ser Val Met Ser Ser Thr Glu Met Ile Asn Gly His 185 Lys Val Thr Thr Lys Arg lle Val Glu Asn Gly Gln Glu Arg Val Glu 195 200 205 Val Glu Glu Asp Gly Gln Leu Lys Ser Val Thr Val Asn Gly Lys Glu 215 220 Gln Leu Lys Trp Met Asp Ser Lys 225 230

<210> 3830

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3830

Met Ser Ile His Arg Ile Cys Arg His Pro Ser Lys Glu Ser Cys Thr
1 5 10 15

Ala Tyr Ser Thr Asp lle Leu Thr Lys Ala Ser Pro Ser Cys Leu Gly
20 25 30

Gly Val Gly Leu Phe Pro Tyr Ile Leu Ser Ser Leu Glu Thr Arg Gln
35 40 45

Val Asn Gln Leu Gly Val Lys Trp Pro Ser Ala Met Ser Ser Pro Gly
50 55 60

Glu Ser 11e Pro Leu Leu Pro Leu Phe Pro Cys Asn Trp Asn Trp Thr
65 70 75 80

 Thr
 Trp
 Cys
 Pro
 Arg
 Leu
 Ser
 Gly
 Val
 Lys
 Leu
 Pro
 Leu
 Gly
 Val
 Ser

 Cys
 Ser
 Ser
 Val
 Thr
 Phe
 11e
 Phe
 Ala
 Phe
 Leu
 Met
 Ser
 Pro
 Leu
 Ala

 Val
 Leu
 Leu
 Leu
 Gln
 Leu
 L

<210> 3831

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3831

Met Gly Glu Asp Phe Met Thr Lys Thr Pro Lys Ala Met Ala Thr Lys 5 10 Ala Lys Ile Asp Lys Trp His Leu Ile Lys Leu Lys Ser Phe Cys Thr 25 Ala Lys Glu Thr Thr lle Arg Met Asn Arg Gln Pro Thr Glu Trp Glu 35 40 45 Lys lle Phe Ala Ile Tyr Pro Ser Asp Lys Gly Leu lle Ser Arg Ile 55 Cys Lys Glu Leu Lys Gln 11e Tyr Lys 11e Lys Ser Asn Asn Ser 11e 65 70 75 80

Asn Lys Trp Ala Lys Asp Met Asn Arg His Phe Ser Lys Glu Asp Ile

90 Tyr Ala Ala Lys Arg His Met Lys Glu Cys Ser Ser Ser Leu Ala Ile 100 105 110 Arg Glu Met Gln Ile Lys Thr Thr Val Arg Tyr Tyr Leu Thr Pro Val 120 125 Arg Met Ala Ile Ile Lys Lys Ser Gly Asn Asn Arg Cys Trp Lys Gly 135 140 Tyr Gly Glu lle Gly Thr Leu Leu His Cys Trp Trp Asp Cys Lys Leu 145 150 155 160 Val Gln Pro Leu Trp Lys Thr Val Trp Arg Phe Leu Lys Asp Leu Glu

Leu Glu Ile Pro Phe Asp Pro Ala Ile Pro Leu Leu Gly Ile Tyr Pro Lys Asp Tyr Lys Ser Cys Cys Tyr Lys Asp Thr Cys Thr Arg Lys Phe lle Leu Ala Leu Leu Thr lle Ala Lys Thr Trp Asn Gln Pro Lys Cys Pro Ser Met Ile Asp Trp Ile Lys Lys Met Trp His Met Tyr Thr Ile Glu Tyr Tyr Ala Ala Ile Lys Arg Met Ser Ser Cys Pro Leu 

<210> 3832

<211> 1014

<212> PRT

<213> Homo sapiens

<400> 3832

Met Pro Asn Pro Pro Leu Tyr Tyr Gln Pro Gly Asn Asp Gln Pro Val Ser Phe Asn Leu Lys Asn Thr Ser Gln Val Ser Leu His Arg Ser Glu Thr lle Ser Leu Gln Thr Trp Cys Ser Cys Val Ala Gly Gln Pro lle Gln Thr Phe Trp Val Ser Glu Trp Ser Thr Met Asn Pro Glu Gln Arg His His Cys Gln Gln Thr Pro Asn Pro Met Ala Leu Ala Leu Pro Ser Pro Ala Leu Lys Ala Leu Ser Gly Pro His Pro Gln Ser Gly Gly Gln Asp Asn Asp Ser Gly Ser Asp Leu Gln Gln Lys Tyr Ser Gln Leu Phe Cys Gly Leu Pro Ser Leu His Ser Glu Ser Leu Val Ala Thr Phe Met

Gly Ser Gln Gly Leu Pro Lys 11e Glu Asn Val Pro Lys Pro Pro Leu

	130					135					140				
Lys	Asp	Pro	Phe	Leu	Phe	Asn	Glu	Leu	Ser	Phe	Pro	Gln	Leu	Leu	Pro
145					150					155					160
Lys	Thr	Ser	Pro	Gln	Ser	Ala	Pro	Pro	Ser	Ser	Pro	Leu	Ser	Pro	Asn
				165					170					175	
Trp	Val	Ser	Pro	Ser	Asp	His	Gln	Arg	Ala	Gln	He	Asn	Val	Pro	Phe
			180					185					190		
Leu	Thr	Leu	Ala	Glu	Tyr	Glu	Ala	Leu	Glu	Trp	His	Leu	Leu	Gln	Arg
		195					200					205			
Gln	Leu	Gln	Leu	Gln	Trp	Gly	Trp	Pro	Ala	Ala	Leu	Gln	Arg	Ser	Gln
	210					215					220				
His	Thr	Gln	Cys	Leu	Met	Gln	His	Glu	Pro	Cys	Gly	Lys	Ala	Gln	Ser
225					230					235					240
Pro	Glu	Thr	Thr	Thr	Ala	Ser	Gln	Thr	G1 y	Lys	Ser	He	Ser	Va]	Leu
				245					250					255	
Thr	Arg	Glu	Leu	Leu	Phe	Phe	Pro	Glu	His	Ala	Arg	Lys	Leu	Leu	Glu
			260					265					270		
Phe	His	Ile	Gln	Lys	Gln	Ser	Ile	His	His	Arg	Trp	Gly	Leu	Pro	Gln
		275					280					285			
Lys	He	Gln	Gln	Ser	He	Gln	Leu	Leu	Leu	Thr	Ser	Thr	Asp	Gln	Gln
	290					295					300				
Thr	Va]	Ser	Ser	Ser	Ser	Thr	Ala	Leu	Ala	Asn	Va]	Ser	Ile	Pro	
305					310					315					320
Pro	Val	Ala	Leu		Ala	Asn	Gly	Ala	Cys	Asp	Val	Leu	Ser	Pro	He
				325					330					335	
Ala	Ala	Pro	Val	Ser	Ile	Pro	Arg	Pro	His	Leu	Leu	Thr	Gln	Val	Lys
			340					345					350		
Ala	Ile		Gln	Ser	His	Ile		Ser	Lys	Cys	Gly		He	His	Gln
		355					360		_			365			_
G1 y		lle	Pro	Ala	Cys		His	Arg	Ser	Trp		Cys	Arg	He	Ser
	370	_				375			-		380				
	Val	Leu	Ala	Val		Pro	Phe	Pro	Cys		Pro	Glu	Ser	GIn	
385	6.1	•	0.1	m.	390	0		D		395					400
Leu	Glu	Leu	GIn		Ala	Ser	Asp	Pro		Leu	His	His	Lys		Met
15	Tr.		13	405	. 1	•		0.3	410	C.	0.7			415	63
Pro	Trp	Met	Pro	Ihr	Ala	Leu	Asp	GIn	GIn	GIn	Ыn	Ala	Leu	Pro	GIV

			420					425					430		
Thr	Val	Thr	Glu	His	Pro	Lys	Leu	Leu	Arg	Val	Leu	Ser	Val	Glu	Ala
		435					440					445			
lle	Glu	Lys	Leu	Glu	Thr	Thr	Leu	Arg	His	Lys	His	Leu	Ala	Phe	Leu
	450					455					460				
Ser	Gly	Leu	Pro	Ala	Leu	Tyr	Tyr	Val	Ala	Leu	Pro	Arg	Ala	Leu	Ala
465					470					475					480
Pro	Ala	Val	Thr	Ser	Gln	Ser	Val	Ile	Thr	Glu	Met	Val	Pro	Ser	Pro
				485					490					495	
Val	Glu	Ile	Pro	Ala	Glu	Pro	Leu	Ile	Gln	Met	Val	Ser	Phe	Glu	Glu
			500					505					510		
Gln	Cys	lle	Ser	Leu	Gly	Pro	Cys	Pro	Gln	Gly	Asn	Asn	Glu	Ser	Cys
		515					520					525			
Thr	Asp	Val	Ala	Lys	Glu	Phe	Gln	Pro	Ala	Val	Pro	Val	Lys	Gly	Thr
	530					535					540				
Met	Glu	Thr	Leu	Pro	Leu	Glu	Ser	Gln	Thr	His	Pro	Thr	Ser	Pro	His
545					550					555					560
Ser	Leu	Gln	Thr	His	Ile	Leu	Thr	Lys	Leu	Asn	Phe	His	Leu	Arg	Lys
				565					570					575	
Lys	Val	Leu	Glu	He	Gln	Trp	Gly	lle	Pro	He	Arg	Ala	Arg	Lys	Ser
			580					585					590		
Arg	Glu	Gln	Thr	Val	Ala	Ala	Pro	Glu	Asn	lle	Ser	Thr	Gln	Lys	Ser
		595					600					605			
Leu	Glu	Ser	Leu	Asn	His	Gln	Gly	Glu	Thr	Leu	Leu	Gln	Glu	Leu	Pro
	610					615					620				
	Pro	Pro	Asp	Thr				Pro	Asn			Gly	Val		
625										635					
Lys	Glu	Gln	Leu		Asn	Asp	Leu	Lys		Val	Gln	G1n	Asn		Lys
				645					650	_			_	655	
GIn	Ser	Asn		Lys	Ala	Val	Pro		Gly	Ser	Λla	His	Ser	Val	Ser
,			660			6.1		665	m.	6.1			670		
Lys	He		GIn	Pro	He	Gly		Met	Thr	Glu	Ala		Met	Pro	Cys
., .	0.1	675	0.1				680		n			685	0.1		
val		val	Glu	Ala	Asn		Asn	Lys	Pro	Ser		Glu	Glu	Pro	Cys
C1	690	C1	D	C1	C	695	C	,	C	1	700	D	A 1		M 3
61y	rro	010	rro	uln	ser	rro	ser	Lys	Ser	Lys	Asp	rro	Ala	$n_{1}s$	val

705					710					715					720
Pro	Met	Leu	Ala	Glu	Asn	Arg	Glu	Asp	Pro	Glu	Glu	Thr	Lys	Ala	Ala
				725					730					735	
Arg	Asp	Tyr	Arg	Glu	Gly	Asp	Ala	Gly	Phe	Gly	Arg	Ser	Ser	Thr	Arg
			740					745					750		
Glu	Glu	Arg	Arg	Pro	Ala	Glu	Asp	Gln	Arg	Pro	Ala	Gly	Met	Leu	Pro
		755					760					765			
Asn	Lys	Thr	Pro	Arg	Gly	Ser	Trp	Arg	Trp	Ser	His	Ser	Phe	His	Leu
	770					775					780				
Ala	Asp	Pro	Cys	Gln	His	Ser	Pro	Gln	His	His	Pro	Gln	Leu	Lys	Leu
785					790					795					800
Pro	Gln	Leu	Pro	Pro	Arg	Val	Pro	Gly	Glu	Lys	Glu	Ser	Glu	Lys	Asp
				805					810					815	
Leu	Gln	Asp	Ser	Gln	Thr	Lys	Leu	Thr	Val	He	Leu	Glu	Pro	Ala	Thr
			820					825					830		
lle	Pro	Glu	Asn	Ala	Gln	Thr	Val	Leu	Pro	Gln	Ser	Ser	Gln	Gly	Gln
		835					840					845			
Pro	Phe	Leu	Ser	Gln	Pro	Thr	Gln	Ala	Lys	Pro	Leu	Gln	Gly	Gln	Thr
	850					855					860				
Leu	Gln	Gly	Gln	Val	Leu	His	Gly	Leu	Val	Met	Pro	Val	His	Ala	Gln
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Lys	Lys	Pro	Ser	Leu	Thr	Glu	Ser	Ser	Phe	Arg	Asn	Lys	lle	Lys	Cys
				885					890					895	
Phe	Leu	Gln	His	He	Asn	Pro	Lys	Thr	Lys	Gly	Lys	Gly	His	Glu	Asp
			900					905					910		
Ser	Met	Phe	Ser	Ala	Ala	Ala	Lys	Val	Ala	Lys	Thr	Arg	Lys	Glu	Asn
		915					920					925			
Va]	Ala	Lys	Ser	Leu	Ala	Pro	Ala	Lys	Ser	Pro	Val	Gly	Arg	Ser	Lys
	930					935					940				
Thr	Glu	Lys	Pro	Thr	Gly	Cys	Ser	Lys	Ala	Gln	Šer	Arg	Pro	Ala	G]n
945					950					955					960
Lys	Leu	Val	Gly	Pro	Ala	Phe	Leu	Asp	Gly	Pro	Gln	Ser	Leu	Asp	Asp
				965					970					975	
Lys	Leu	Arg	Leu	His	Ser	Arg	Gln	Pro	Gly	Ser	Ala	Ser	Ala	Leu	Gly
			980					985					990		
Tvr	Pro	Arg	His	Cvs	Pro	Arg	His	Cvs	Pro	Arg	Glu	Ala	Cvs	Ala	Asn

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Lys Pro Gly His Pro Thr 1010

<210> 3833

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3833

Met Ala Ala Trp Thr Ala Ser His Trp Pro Val Lys Gly Ile Leu Lys

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Asn Lys Thr Ser Thr Ala Ser Ser Met Val Ala Ser Ala Glu Gln Pro 20 25 30

Ser Gly Ser Val Glu Glu Glu Leu Ser Lys Lys Ser Gln Lys Trp Glu
35 40 45

Glu Met Asn Ile Leu Ala Thr Tyr His Pro Ala Asp Lys Asp Tyr Gly
50 55 60

Leu Met Lys 11e Val Glu Pro Ser Thr Pro Ser Cys Arg Lys Met Gly
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Asp Gly Glu Asp Ala Cys Ser Gly Ile Glu Thr Thr Glu Ala Val Ala 85 90 95

Pro Asp Ile Leu Ala Lys Lys Leu Ala Val Ala Glu Gly Ser Asn Pro 100 105 110

Lys Tyr Arg Val Gln Glu Gln Glu Ser Ser Gly Glu Glu Ala Ser Asp 115 120 125

Leu Ser Pro Glu Glu Arg Glu Lys Arg Arg Gln Phe Gln Met Lys Arg 130 135 140

Lys Leu His Tyr Asn Glu Gly Leu Asn 11e Lys Leu Ala Arg Glu Leu 145

11e

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Leu Val Ser Ser Ile Ser Glu Ile Gln Asn Gln Val Leu Glu Glu Ile
             20 ·
                                 25
                                                      30
Gln Asn Leu Asn Cys Val Lys Glu Asn Ser Ala Thr Phe Ile Glu Arg
                             40
Lys Leu Ser Phe Glu Lys Lys Pro Val Gln 11e Leu Pro Glu Met
                         55
Pro His Gln Thr Asp Ile His Arg Ser Lys Leu Leu Ser Thr Tyr Ser
65
                     70
                                         75
Ala Glu Glu Leu Tyr Gln Ala Lys Arg Lys Cys Asn Ala Thr Gln Glu
                                     90
Tyr Asp Ile Asn Leu Leu Glu Gly Asp Leu Val Ala Val Ile Glu Gln
            100
                                105
                                                     110
Lys Asp Pro Leu Gly Ser Thr Ser Arg Trp Leu Val Asp Thr Gly Asn
        115
                            120
Val Lys Gly Tyr Val Tyr Ser Ser Phe Leu Lys Pro Tyr Asn Pro Ala
                        135
Lys Met Gln Lys Val Asp Ala Glu Asn Arg Phe Cys Asp Asp Asp Phe
                                         155
145
                    150
                                                             160
Glu Asn 11e Ser Leu Phe Val Ser Ser Arg Pro Ala Ser Asp Ser Val
                165
                                    170
Thr Gly Thr Ser Glu Ser Ser 11e Gly Asp Ser Ser Ser Ser Leu Ser
            180
                                185
                                                     190
Gly Thr Cys Gly Lys Phe Glu Thr Asn Gly Thr Asp Val Asp Ser Phe
                            200
                                                 205
Gln Glu Val Asp Glu Gln Ile Phe Tyr Ala Val His Ala Phe Gln Ala
                        215
                                            220
Arg Ser Asp His Glu Leu Ser Leu Gln Glu Tyr Gln Arg Val His 11e
225
                    230
                                         235
                                                             240
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Leu Arg Phe Cys Asp Leu Ser Gly Asn Lys Glu Trp Trp Leu Ala Glu

<211> 275

Ala Gln Gly Gln Lys Gly Tyr Val Pro Ala Asn Tyr Leu Gly Lys Met Thr Tyr Ala <210> 3835 <211> 1551 <212> PRT <213> Homo sapiens <400> 3835 Met Ser Pro 11e Gly Asp Ala Phe Arg Asn Arg Leu Arg Met Phe Pro Ser Leu Ile Asn Cys Cys Thr Ile Asp Trp Phe Gln Ser Trp Pro Thr Asp Ala Leu Glu Leu Val Ala Asn Lys Phe Leu Glu Asp Val Glu Leu Asp Asp Asn lle Arg Val Glu Val Val Ser Met Cys Lys Tyr Phe Gln Glu Ser Val Lys Lys Leu Ser Leu Asp Tyr Tyr Asn Lys Leu Arg Arg His Asn Tyr Val Thr Pro Thr Ser Tyr Leu Glu Leu lle Leu Thr Phe Lys Thr Leu Leu Asn Ser Lys Arg Gln Glu Val Ala Met Met Arg Asp Arg Tyr Leu Thr Gly Leu Gln Lys Leu Asp Phe Ala Ala Ser Gln Val Ala Val Met Gln Arg Glu Leu Thr Ala Leu Gln Pro Gln Leu lle Leu Thr Ser Glu Glu Thr Ala Lys Met Met Val Lys lle Glu Ala Glu Thr Arg Glu Ala Asp Gly Lys Lys Leu Leu Val Gln Ala Asp Glu Lys Glu 

Ala Asn Val Ala Ala Ala Ile Ala Gln Gly Ile Lys Asn Glu Cys Glu

			180					185					190		
Gly	Asp	Leu	Ala	Glu	Ala	Met	Pro	Ala	Leu	Glu	Ala	Ala	Leu	Ala	Ala
		195					200					205			
Leu	Asp	Thr	Leu	Λsn	Pro	Ala	Asp	He	Ser	Leu	Val	Lys	Ser	Met	Gln
	210					215					220				
Asn	Pro	Pro	Gly	Pro	Val	Lys	Leu	Val	Met	Glu	Ser	He	Cys	He	Met
225					230					235					240
Lys	Gly	Met	Lys	Pro	Glu	Arg	Lys	Pro	Asp	Pro	Ser	Gly	Ser	Gly	Lys
				245					250					255	
Met	He	Glu	Asp	Tyr	Trp	Gly	Val	Ser	Lys	Lys	He	Leu	Gly	Asp	Leu
			260					265					270		
Lys	Phe	Leu	G1u	Ser	Leu	Lys	Thr	Tyr	Asp	Lys	Asp	Asn	He	Pro	Pro
		275					280					285			
Leu		Met	Lys	Arg	He	Arg	Glu	Arg	Phe	He	Asn	His	Pro	G] u	Phe
	290					295					300				
	Pro	Ala	Val	He		Asn	Val	Ser	Ser		Cys	Glu	Gly	Leu	
305					310	0.1	., .	<b></b>		315				., ,	320
Lys	Trp	Val	Arg		Met	Glu	Val	Tyr		Arg	Val	Ala	Lys		Val
. 1	D			325	<b>A</b>	ı	Α.	61.	330	C1	C1	1	1	335	A 1 -
Ala	Pro	Lys		Glu	Arg	Leu	Arg		Ala	Glu	61 y	Lys		Ma	Ala
Cla	Mat	Clis	340	1	Aan	C1 <sub>10</sub>	1	345	Ala	Clu	Lau	Luc	350	Vol	Vol.
GIII	мет		Lys	Leu	ASII	Gln		AI g	ма	010	Leu	365	Leu	vai	vai
Aan	Ara	355 Lau	C.Lo	Ala	Lou	Asn	360 Acn	Acn	Pho	Clu	Clu		Acn	The	Lvc
лър	370	Leu	0111	Ма	Leu	375	nsp	nsp	rne	Olu	380	Me t	лы	1111	rys
Lvs		Asn	Len	Glu	Glu	Asn	11e	Glu	He	Cvs		Gln	lvs	Leu	Val
385	1.2 ( 1.3	пор	Bed	014	390		110	0,10	110	395		0111	2,0	1500	400
	Ala	Glu	Lvs	Leu		Ser	Glv	l.eu	G1 v			Lvs	Asp	Arg	
6				405			,		410			,		415	
Thr	Glu	Ala	Ala		Gln	Leu	Gly	lle		Tyr	Thr	Asn	Leu		G1 y
			420				٠	425					430		•
Asp	Va]	Leu	Leu	Ser	Ser	Gly	Thr	Val	Ala	Tyr	Leu	Gly	Ala	Phe	Thr
		435					440					445			
Val	Asp	Tyr	Arg	Val	Gln	Cys	Gln	Asn	Gln	Trp	Leu	Ala	Glu	Cys	Lys
	450					455					460				
Asp	Lvs	Val	He	Pro	Glv	Phe	Ser	Asp	Phe	Ser	Leu	Ser	His	Thr	Leu

465					470					475					480
Gly	Asp	Pro	lle	Lys	He	Arg	Ala	Trp	Gln	He	Ala	Gly	Leu	Pro	Val
				485					490					495	
Asp	Ser	Phe	Ser	He	Asp	Asn	Gly	He	He	Val	Ser	Asn	Ser	Arg	Arg
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Trp	Ala	Leu	Met	He	Asp	Pro	His	Gly	Gln	Ala	Asn	Lys	Trp	He	Lys
		515					520					525			
Asn	Met	Glu	Lys	Ala	Asn	Lys	Leu	Ala	Val	Пe	Lys	Phe	Ser	Asp	Ser
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Asn	Tyr	Met	Arg	Met	Leu	Glu	Asn	Ala	Leu	Gln	Leu	Gly	Thr	Pro	Val
545					550					555					560
Leu	He	Glu	Asn	11e	G1 y	Glu	Glu	Leu	Asp	Ala	Ser	lle	Glu	Pro	He
				565					570					575	
Leu	Leu	Lys	Ala	Thr	Phe	Lys	Gln	Gln	Gly	Val	Glu	Tyr	Met	Arg	Leu
			580					585					590		
G1 y	Glu	Asn	He	lle	Glu	Tyr	Ser	Arg	Asp	Phe	Lys	Leu	Tyr	He	Thr
		595					600					605			
Thr	Arg	Leu	Arg	Asn	Pro	His	Tyr	Leu	Pro	Glu	Val	Ala	Val	Lys	Val
	610					615					620				
Cys	Leu	Leu	Asn	Phe	Met	He	Thr	Pro	Leu	Gly	Leu	Gln	Asp	Gln	Leu
625					630					635					640
Leu	Gly	He	Val	Ala	Ala	Lys	Glu	Lys	Pro	Glu	Leu	Glu	Glu	Lys	Lys
				645					650					655	
Asn	Gln	Leu	lle	Val	Glu	Ser	Ala	Lys	Asn	Lys	Lys	His	Leu	Lys	Glu
			660					665					670		
11e	Glu	Asp	Lys	He	Leu	Glu	Val	Leu	Ser	Met	Ser	Lys	Gly	Asn	He
		675					680					685			
Leu	Glu	Asp	Glu	Thr	Ala	He	Lys	Val	Leu	Ser	Ser	Ser	Lys	Val	Leu
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Ser	Glu	Glu	lle	Ser	Glu	Lys	Gln	Lys	Val	Ala	Ser	Met	Thr	Glu	Thr
705					710					715					720
Gln	He	Asp	Glu	Thr	Arg	Met	Gly	Tyr	Lys	Pro	Val	Ala	Val	His	Ser
				725					730					735	
Ala	Thr	He	Phe	Phe	Cys	Пе	Ser	Asp	Leu	Ala	Asn	He	Glu	Pro	Met
			740					745					750		
Tyr	Gln	Tyr	Ser	Leu	Thr	Trp	Phe	He	Asn	Leu	Tyr	Met	His	Ser	Leu

		755					760					765			
Thr	His	Ser	Thr	Lys	Ser	Glu	Glu	Leu	Asn	Leu	Arg	Ile	Lys	Tyr	11e
	770					775					780				
He	Asp	His	Phe	Thr	Leu	Ser	He	Tyr	Asn	Asn	Val	Cys	Arg	Ser	Leu
785					790					795					800
Phe	Glu	Lys	Asp	Lys	Leu	Leu	Phe	Ser	Leu	Leu	Leu	Thr	lle	Gly	He
				805					810					815	
Met	Lys	Gln	Lys	Lys	Glu	lle	Thr	Glu	Glu	Val	Trp	Tyr	Phe	Leu	Leu
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Thr	Gly	Gly	Ile	Ala	Leu	Asp	Asn	Pro	Tyr	Pro	Asn	Pro	Ala	Pro	Gln
		835					840					845			
Trp	Leu	Ser	Glu	Lys	Ala	Trp	Ala	Glu	He	Va1	Arg	Ala	Ser	Ala	Leu
	850					855					860				
Pro	Lys	Leu	His	Gly	Leu	Met	Glu	His	Leu	Glu	Gln	Asn	Leu	Gly	Glu
865					870					875					880
Trp	Lys	Leu	lle	Tyr	Asp	Ser	Ala	Trp	Pro	His	Glu	Glu	Gln	Leu	Pro
				885					890					895	
Gly	Ser	Trp	Lys	Phe	Ser	Gln	Gly	Leu	Glu	Lys	Met	Val	lle	Leu	Arg
			900					905					910		
Cys	Leu	Arg	Pro	Asp	Lys	Met	Val	Pro	Ala	Val	Arg	Glu	Phe	lle	Ala
		915					920					925			
Glu	His	Met	Gly	Lys	Leu	Tyr	He	G1 u	Ala	Pro	Thr	Phe	Asp	Leu	Gln
	930					935					940				
Gly	Ser	Tyr	Asn	Asp	Ser	Ser	Cys	Cys	Ala	Pro	Leu	He	Phe	Val	Leu
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Ser	Pro	Ser	Ala	Asp	Pro	Met	Ala	Gly	Leu	Leu	Lys	Phe	Ala	Asp	Asp
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Leu	Gly	Met	Gly	Gly	Thr	Arg	Thr	Gln	Thr	He	Phe	Leu	Gly	Gln	Gly
			980					985					990		
Gln	Gly	Pro	He	Ala	Ala	Lys	Met	He	Asn	Asn	Ala	He	Lys	Asp	Gly
		995					1000					1005			
Thr	Trp	Va]	Val	Leu	Gln	Asn	Cys	His	Leu	Ala	Ala	Ser	Trp	Met	Pro
	1010					1015					1020				
Thr	Leu	Glu	Lys	11e	Cys	Glu	Glu	Val	He	Val	Pro	Glu	Ser	Thr	Asn
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Ala	Ara	Phe	Aro	Leu	Trn	Leu	Thr	Ser	Tyr	Pro	Ser	Glu	Lve	Phe	Pro

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Val	Ser	lle	Leu	Gln	Asn	Gly	Пe	Lys	Met	Thr	Asn	Glu	Pro	Pro	Lys
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Gly	Leu	Arg	Ala	Asn	Leu	Leu	Arg	Ser	Tyr	Leu	Asn	Asp	Pro	He	Ser
	]	1075				]	080					1085			
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110	5			]	1110				1	1115				]	120
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Leu	Ala	Pro	G1 y	Asp	Thr	Tyr	Tyr	He	Pro	Pro	His	Gly	Ser	Tyr	Gln
								1	210				1	1215	
			-	1205					1210						
Ser	Tyr	lle			Leu	Arg	Asn			Пе	Thr	Ala			Glu
Ser	Tyr				Leu	Arg				He	Thr				G1 u
	Phe	Gly	Asp 1220	Tyr			]	Leu 1225	Pro			1	His 1230	Pro	
Val	Phe	Gly 1235	Asp 1220 Leu	Tyr His	Glu	Asn	Ala 1240	Leu 1225 Asp	Pro Ile	Thr	Lys	Asp 1245	His 1230 Asn	Pro Gln	Glu
Val Thr	Phe Asn	Gly 1235	Asp 1220 Leu	Tyr His	Glu Glu	Asn Gly	Ala 1240	Leu 1225 Asp	Pro Ile	Thr Thr	Lys Leu	Asp 1245	His 1230 Asn	Pro Gln	Glu
Val Thr	Phe Asn 1250	Gly 1235 Gln	Asp 1220 Leu Leu	Tyr His Phe	Glu Glu	Asn Gly 1255	Ala 1240 Val	Leu 1225 Asp Leu	Pro Ile Leu	Thr Thr	Lys Leu 260	Asp 1245 Pro	His 1230 Asn Arg	Pro Gln Gln	Glu Ser
Val Thr Gly	Phe Asn 1250 Gly	Gly 1235 Gln	Asp 1220 Leu Leu	Tyr His Phe Lys	Glu Glu Ser	Asn Gly 1255	Ala 1240 Val	Leu 1225 Asp Leu	Pro Ile Leu Val	Thr Thr Val	Lys Leu 260	Asp 1245 Pro	His 1230 Asn Arg	Pro Gln Gln Ala	Glu Ser Gln
Val Thr Gly 1265	Phe Asn 1250 Gly	Gly 1235 Gln Ser	Asp 1220 Leu Leu Gly	Tyr His Phe Lys	Glu Glu Ser 1270	Asn Gly 1255 Pro	Ala 1240 Val Gln	Leu 1225 Asp Leu Glu	Pro He Leu Val	Thr Thr Val 1275	Lys Leu 260 Glu	Asp 1245 Pro Glu	His 1230 Asn Arg Leu	Pro Gln Gln Ala	Glu Ser Gln 1280
Val Thr Gly 1265	Phe Asn 1250 Gly	Gly 1235 Gln Ser	Asp 1220 Leu Leu Gly Ser	Tyr His Phe Lys Lys	Glu Glu Ser 1270	Asn Gly 1255 Pro	Ala 1240 Val Gln	Leu 1225 Asp Leu Glu Asp	Pro He Leu Val Phe	Thr Thr Val 1275	Lys Leu 260 Glu	Asp 1245 Pro Glu	His 1230 Asn Arg Leu Glu	Pro Gln Gln Ala Val	Glu Ser Gln 1280
Val Thr Gly 1268 Asp	Phe Asn 1250 Gly 5	Gly 1235 Gln Ser Leu	Asp 1220 Leu Leu Gly Ser	His Phe Lys Lys 1285	Glu Glu Ser 1270 Leu	Asn Gly 1255 Pro	Ala 1240 Val Gln Arg	Leu 1225 Asp Leu Glu Asp	Pro The Leu Val Phe 1290	Thr Thr Val 1275 Asp	Lys Leu 260 Glu Leu	Asp 1245 Pro Glu Glu	His 1230 Asn Arg Leu Glu	Gln Gln Ala Val	Glu Ser Gln 1280 Met
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Val Thr Gly 1268 Asp	Phe Asn 1250 Gly 5 Leu	Gly 1235 Gln Ser Leu	Asp 1220 Leu Leu Gly Ser Pro 1300	His Phe Lys Lys 1285 Val	Glu Glu Ser 1270 Leu Val	Asn Gly 1255 Pro Pro	Ala 1240 Val Gln Arg	Leu 1225 Asp Leu Glu Asp Glu 1305	Pro The Leu Val Phe 1290 Ser	Thr Thr Val 1275 Asp	Lys Leu 260 Glu Leu Asn	Asp 1245 Pro Glu Glu Thr	His 1230 Asn Arg Leu Glu Val	GIn GIn Ala Val I295 Leu	Glu Ser Gln 280 Met
Val Thr Gly 1268 Asp	Phe Asn 1250 Gly 5 Leu Glu	Gly 1235 Gln Ser Leu Tyr	Asp 1220 Leu Leu Gly Ser Pro 1300	His Phe Lys Lys 1285 Val	Glu Glu Ser 1270 Leu Val	Asn Gly 1255 Pro Pro Tyr Asn	Ala 1240 Val Gln Arg Glu	Leu 1225 Asp Leu Glu Asp Glu 1305	Pro The Leu Val Phe 1290 Ser	Thr Thr Val 1275 Asp	Lys Leu 260 Glu Leu Asn	Asp 1245 Pro Glu Glu Thr	His 1230 Asn Arg Leu Glu Val	GIn GIn Ala Val I295 Leu	Glu Ser Gln 280 Met
Val Thr Gly 1265 Asp Lys	Phe Asn 1250 Gly 5 Leu Glu	Gly 1235 Gln Ser Leu Tyr Leu 1315	Asp 1220 Leu Leu Gly Ser Pro 1300 11e	His Phe Lys Lys 1285 Val	Glu Glu Ser 1270 Leu Val	Asn Gly 1255 Pro Pro Tyr Asn	Ala 1240 Val Gln Arg Glu Arg	Leu 225 Asp Leu Glu Glu 305 Leu	Pro Ile Leu Val Phe 1290 Ser	Thr Val 1275 Asp Met	Lys Leu 260 Glu Leu Asn	Asp 1245 Pro Glu Glu Thr Val	His 1230 Asn Arg Leu Glu Val 1310 Arg	Pro Gln Gln Ala Val I295 Leu Arg	Glu Ser Gln 280 Met Arg

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Glu	Leu	Glu	Glu	Val	Phe	Asn	Ser	Met	Leu	Val	Gly	Lys	Val	Pro	Ala
134	5				1350					1355				]	1360
Met	Trp	Ala	Ala	Lys	Ser	Tyr	Pro	Ser	Leu	Lys	Pro	Leu	Gly	Gly	Tyr
				1365					1370				j	1375	
Val	Ala	Asp	Leu	Leu	Ala	Arg	Leu	Thr	Phe	Phe	Gln	Glu	Trp	lle	Asp
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Lys	Gly	Pro	Pro	Val	Val	Phe	Trp	Ile	Ser	Gly	Phe	Tyr	Phe	Thr	Gln
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Pro	lle	Asp	His	He	Gly	Phe	Glu	Phe	Glu	Va]	Thr	Pro	Gln	Glu	Thr
142	5				1430					1435				]	1440
Val	Met	Glu	Asn	Asn	Pro	Glu	Asp	Gly	Ala	Tyr	He	Lys	Gly	Leu	Phe
				1445					1450				]	1455	
Leu	Glu	Gly	Ala	Arg	Trp	Asp	Arg	Lys	Thr	Met	Gln	lle	Gly	Glu	Ser
			1460					1465					1470		
Leu	Pro	Lys	Ile	Leu	Tyr	Asp	Pro	Leu	Pro	lle	Ile	Trp	Leu	Lys	Pro
	1	1475					1480					1485			
Gly	Glu	Ser	Ala	Met	Phe	Leu	His	Gln	Asp	lle	Tyr	Val	Cys	Pro	Val
	1490					1495					1500				
Tyr	Lys	Thr	Ser	Ala	Arg	Arg	Gly	Thr	Leu	Ser	Thr	Thr	Gly	His	Ser
150	5				1510					1515				1	1520
Thr	Asn	Tyr	Val	Leu	Ser	Пе	Glu	Leu	Pro	Thr	Asp	Met	Pro	Gln	Lys
				1525					1530				1	1535	
His	Trp	lle	Asn	Arg	Gly	Val	Ala	Ser	Leu	Cys	Gln	Leu	Asp	Asn	
		]	1540					1545					1550		

<211> 416

<212> PRT

<213> Homo sapiens

<400> 3836

Met Gln Gly Ala Pro Arg Ala Arg Phe Gly Ser Arg Thr Pro Pro Ala

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			20					25					30		
G1 y	His	Leu	Arg	Thr	Pro	Ala	Gln	Pro	Pro	Pro	Ala	Ser	Pro	Ala	Ala
		35					40					45			
Ser	Ser	Ser	Ser	Ser	Phe	Ala	Ala	Val	Val	Arg	Tyr	Gly	Pro	Gly	Ala
	50					55					60				
Ala	Ala	Ala	Ala	Gly	Thr	Gly	Gly	Thr	Gly	Ser	Asp	Ser	Ala	Ser	Leu
65					70					75					80
Glu	Leu	Ser	Ala	Glu	Ser	Arg	Met	He	Leu	Asp	Ala	Phe	Ala	Gln	Gln
				85					90					95	
Cys	Ser	Arg	Val	Leu	Ser	Leu	Leu	Asn	Cys	Gly	Gly	Lys	Leu	Leu	Asp
			100					105					110		
Ser	Asn	His	Ser	Gln	Ser	Met	He	Ser	Cys	Val	Lys	Gln	Glu	Gly	Ser
		115					120					125			
Ser	Tyr	Asn	Glu	Arg	Gln	Glu	His	Cys	His	lle	Gly	Lys	Gly	Val	His
	130					135					140				
Ser	Gln	Thr	Ser	Asp	Asn	Val	Asp	lle	Glu	Met	Gln	Tyr	Met	Gln	Arg
145					150					155					160
Lys	Gln	Gln	Thr	Ser	Ala	Phe	Leu	Arg	Val	Phe	Thr	Asp	Ser	Leu	Gln
				165					170					175	
Asn	Tyr	Leu	Leu	Ser	Gly	Ser	Phe	Pro	Thr	Pro	Asn	Pro	Ser	Ser	Ala
			180					185					190		
Ser	Glu	Tyr	Gly	His	Leu	Ala	Asp	Va]	Asp	Pro	Leu	Ser	Thr	Ser	Pro
		195					200					205			
Val	His	Thr	Leu	Gly	Gly	Trp	Thr	Ser	Pro	Ala	Thr	Ser	Glu	Ser	His
	210					215					220				
Gly	His	Pro	Ser	Ser	Ser	Thr	Leu	Pro	Glu		Glu	Glu	G]u	Glu	Asp
225					230					235					240
Glu	Glu	Gly	Tyr		Pro	Arg	Cys	Gln	Glu	Leu	Glu	Gln	Glu	Val	He
				245					250					255	
Ser	Leu	G]n		G]u	Asn	G] u	G] u		Arg	Arg	Lys	Leu		Ser	He
			260					265					270		
Pro	Val		Cys	Gln	Thr	Val		Asp	Tyr	Leu	Lys		Val	Leu	Gln
		275		_			280					285			a
His	His	Asn	Gln	Len	len	116	Pro	Gln	Pro	Ala	Asn	G1n	Pro	Thr	Glu

Gly Ser Lys Gln Leu Leu Asn Asn Tyr Pro Val Tyr Ile Thr Ser Lys Gln Trp Asp Glu Ala Val Asn Ser Ser Lys Lys Asp Gly Arg Arg Leu Leu Arg Tyr Leu Ile Arg Phe Val Phe Thr Thr Asp Glu Leu Lys Tyr Ser Cys Gly Leu Gly Lys Arg Lys Arg Ser Val Gln Ser Gly Glu Thr Gly Pro Glu Arg Arg Pro Leu Asp Pro Val Lys Val Thr Cys Leu Arg Gly Thr Ala Ser Phe Arg Ser Val Ser Pro Ser Val Ile Ser Phe His Arg Ile Gly Cys Gly Ser Pro Arg Thr Ser Val Gln Pro Ser Val Phe 

<210> 3837

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3837

Met Arg Asn Gln Ala Val Asn Val Ala Cys Arg Phe His Val Asp Val Ser Phe Gln lle Ser Gly Phe Asn lle Cys Asp Ala Leu Gly Thr Cys Gly Ser Ser Pro Leu Ser Phe Val Ser His Cys Pro Thr Gly Cys Gln Arg Gly Cys Ala Met Ser Tyr Ser Gln Gln Thr Trp Met Arg Val Ser Arg Thr Pro Asn Ser Pro Ser lle Trp Cys Cys Gln Cys Cys Leu Gly Arg Leu Met Gly Ser Pro Ser Cys His Pro Pro Val Gly Pro Thr Met 

Gly Pro Arg Gly Ser Gly Arg Ala Pro Phe Thr lle Met His Asp Phe

100 105 110 Val Cys Cys Leu Leu Ser Pro Gln Asp Pro Pro Gly Phe Trp Pro His 120 125 115 Met Phe Gln Pro Gly Pro Gly Leu Gly Thr Arg Glu Val Leu Gly Ser 130 135 Trp Cys Arg Leu Leu Pro Gly Leu Gly Glu Leu Leu Ala Ala Leu Ser 150 155 Ser Leu Leu Gly Asp Pro Gly Phe Cys Ser Gly Lys Val Pro Ile Pro 165 170 175 Leu Ile His Pro Ile Ser Ser Gly Thr Leu Trp Leu Ser 180 185

<210> 3838

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3838

Met Ala Leu Lys Phe Gln Gly Lys Tyr Asp Gln Ala Val His Gln Glu

1 5 10 15

Ala Gln Met Pro His Gly Gln Gly Asn Ser Phe Ser Arg Arg Pro Thr
20 25 30

Asp Phe Ser Cys Leu Gly Ser Glu Glu Ala Thr Lys Ile Cys Pro Ser 35 40 45

Thr Arg Leu Ser Gly Glu Met Ser Arg Leu His Phe His Gln Ser Leu 50 55 60

Ser Ser Ser Pro Thr Pro Gln Thr Thr Gly Arg Leu Gly Gly Ser Ser

65 70 75 80

Lys Phe Leu Val Ala Asp Ser Leu Val Val IIe Met Phe Gln Lys Leu 85 90 95

Lys Trp Glu Trp Lys Leu Ser Ser Phe Leu Tyr Ser Lys Asn Cys Leu 100 105 110

Gln His 11e Pro

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<211> 1264
<212> PRT
<213> Homo sapiens
<400> 3839
Met Ser Leu Gln Arg Glu Pro Pro Arg Pro Glu Pro Pro Pro Phe
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                                     10
Pro Pro Leu Pro Leu Gln Pro Pro Pro Pro Arg Glu Ser Ala Ser Arg
                                 25
Ala Glu Gln Pro Pro Arg Pro Pro Arg Glu Thr Val Arg Leu Glu Leu
         35
                             40
                                                 45
Val Leu Lys Asp Pro Thr Asp Glu Ser Cys Val Glu Phe Ser Tyr Pro
                         55
Glu Leu Leu Cys Gly Glu Gln Arg Lys Lys Leu Ile His Thr Glu
                     70
                                         75
Asp Pro Phe Asn Asp Glu His Gln Glu Arg Gln Glu Val Glu Met Leu
                 85
                                     90
                                                         95
Ala Lys Lys Phe Glu Met Lys Tyr Gly Gly Lys Pro Arg Lys His Arg
                                105
Lys Asp Arg Leu Gln Asp Leu lle Asp Ile Gly Phe Gly Tyr Asp Glu
        115
                            120
                                                125
Thr Asp Pro Phe lle Asp Asn Ser Glu Ala Tyr Asp Glu Leu Val Pro
                        135
                                            140
Ala Ser Leu Thr Thr Lys Tyr Gly Gly Phe Tyr 11e Asn Thr Gly Thr
                    150
                                        155
Leu Gln Phe Arg Gln Ala Ser Asp Thr Glu Glu Asp Asp 11e Thr Asp
                165
                                    170
                                                         175
Asn Gln Lys His Lys Pro Pro Lys Val Pro Lys Ile Lys Glu Asp Asp
                                185
Ile Glu Met Lys Lys Arg Lys Arg Lys Glu Glu Gly Glu Lys Glu Lys
        195
                            200
                                                205
Lys Pro Arg Lys Lys Val Pro Lys Gln Leu Gly Val Val Ala Leu Asn
   210
                        215
                                            220
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Ser	His	Lys	Ser	Glu	Lys	Lys	Lys	Lys	Arg	Tyr	Lys	Asp	Ser	Leu	Ser
225					230					235					240
Leu	Λla	Ala	Met	11e 245	Arg	Lys	Phe	Gln	Lys 250	Glu	Lys	Asp	Ala	Leu 255	Lys
Lys	Glu	Ser	Λsn 260	Pro	Lys	Val	Pro	Val 265	Thr	Leu	Ser	Thr	Pro 270	Ser	Leu
Asn	Lys	Pro 275	Pro	Cys	Ala	Ala	Ala 280	Ala	Leu	Gly	Asn	Asp 285	Val	Pro	Asp
Leu	Asn 290	Leu	Ser	Ser	Gly	Asp 295	Pro	Asp	Leu	Pro	Ile 300	Phe	Val	Ser	Thr
Asn 305	Glu	His	Glu	Leu	Phe 310	Gln	Glu	Ala	Glu	Asn 315	Ala	Leu	Glu	Met	Leu 320
Asp	Asp	Phe	Asp	Phe 325	Asp	Arg	Leu	Leu	Asp 330	Ala	Ala	Ser	Asp	Gly 335	Ser
Pro	Leu	Ser	Glu 340	Ser	Gly	Gly	Glu	Asn 345	Gly	Thr	Thr	Thr	Gln 350	Pro	Thr
Tyr	Thr	Ser 355	Gln	Val	Met	Pro	Lys 360	Val	Val	Pro	Thr	Leu 365	Pro	Glu	Gly
Leu	Pro 370	Val	Leu	Leu	Glu	Lys 375	Arg	Ile	Glu	Asp	Leu 380	Arg	Val	Ala	Ala
Lys 385	Leu	Phe	Asp	Glu	G1u 390	G1 y	Arg	Lys	Lys	Phe 395	Phe	Thr	Gln	Asp	Met 400
Asn	Asn	Ile	Leu	Leu 405	Asp	Ile	Glu	Leu	Gln 410	Leu	Gln	Glu	Leu	Gly 415	Pro
Val	He	Arg	Ser 420	Gly	Val	Tyr	Ser	His 425	Leu	Glu	Ala	Phe	Val 430	Pro	Cys
Asn	Lys	G1u 435	Thr	Leu	Val	Lys	Arg 440	Leu	Lys	Lys	Leu	His 445	Leu	Asn	Val
Gln	Asp 450	Asp	Arg	Leu	Arg	Glu 455	Pro	Leu	Gln	Lys	Leu 460	Lys	Leu	Ala	Va]
Ser 465	Asn	Va]	Met	Pro	Glu 470	Gln	Leu	Phe	Lys	Tyr 475	Gln	Glu	Asp	Cys	Gln 480
Ala	Arg	Ser	Gln	Ala 485	Lys	Cys	Ala	Lys	Leu 490	G1n	Thr	Asp	Glu	Glu 495	Arg
Glu	Lys	Asn	Gly	Ser	Glu	Glu	Asp	Asp	Asp	Glu	Lys	Pro	Gly	Lys	Arg

Val	lle	Gly	Pro	Arg	Lys	Lys	Phe	His	Trp	Asp	Asp	Thr	Ile	Arg	Thr
		515					520					525			
Leu		Cys	Asn	Leu	Val	Glu	He	Lys	Leu	Gly	Cys	Tyr	Glu	Leu	Glu
	530					535					540				
		Lys	Ser	Gln	Ser	Ala	Glu	Asp	Tyr	Leu	Lys	Ser	Phe	Met	Glu
545					550					555					560
Thr	Glu	Val	Lys		Leu	Trp	Pro	Lys		Trp	Met	Gln	Ala		Met
	131		0.1	565		0	., ,		570		_		_	575	_
Leu	Phe	Lys		Ser	Arg	Ser	Val		Asn	His	Leu	Thr		Ala	Pro
A 1 -	1	1	580	V - 1	T 1	D.	4.7	585		Б		17 1	590	0.1	12. 1
Ala	Lys	Lys 595	Lys	val	He	Pro		Pro	Lys	Pro	Lys		Lys	GIu	Val
Met	Val		Thr	Lou	Pro	Lou	600	Son	Dho	Dro	Thr	605	Lau	Lua	C1
MCC	610	Lys	1111	Leu	110	615	1115	261	1116	110	620	мес	Leu	Lys	GIU
Cvs		Pro	Lvs	Lvs	Asp		Lvs	Thr	Pro	Thr		Leu	Val	Ala	Ser
625			, 0	<b>.</b> 5, 0	630	0111	Буб			635	561	Bea	, 01	nia	640
Val	Ser	Gly	Pro	Pro	Thr	Ser	Ser	Ser	Thr	Ala	Ala	Ile	Ala	Ala	Ala
				645					650					655	
Ser	Ser	Ser	Ser	Ala	Pro	Ala	Gln	Glu	Thr	lle	Cys	Leu	Asp	Asp	Ser
			660					665					670		
Leu	Asp	Glu	Asp	Leu	Ser	Phe	His	Ser	Pro	Ser	Leu	Asp	Leu	Val	Ser
		675					680					685			
Glu		Leu	Ala	Val	lle	Asn	Asn	Gly	Asn	Lys	Gly	Pro	Pro	Val	Gly
_	690					695					700				
	Arg	He	Ser	Met	Pro	Thr	Thr	Lys	Pro		Pro	Gly	Leu	Arg	
705	1		4.3	C	710		C	,		715			m.,		720
GIU	Lys	Leu	Ala		He	Met	Ser	Lys		Pro	Leu	Ala	Thr		Lys
Lve	الما	Aen	Sor	725	Gln	The	The	ніс	730	Son	San	Lau	Ha	735	C1
LyS	LCu	пар	740	1 111	Om	1 1111	1111	745	361	361	261	Leu	750	ATA	GTy
His	Thr	Glv		Val	Pro	Lvs	ivs		Gln	Asn	Len	Ala		Thr	G1 v
		755				250	760	0	<b>9111</b>	пор	Leu	765	1113	1 11,1	01 y
He	Ser		Gly	Leu	Пe	Ala		Ser	Ser	Пe	Gln		Pro	Lvs	Val
	770		-			775	J				780			,	· <del>-</del>
Ser	Leu	Glu	Pro	Leu	Pro	Ala	Arg	Leu	Leu	Gln		Gly	Leu	Gln	Arg

785					790					795					800
Ser	Ser	Gln	lle	His	Thr	Ser	Ser	Ser	Ser	Gln	Thr	His	Val	Ser	Ser
				805					810					815	
Ser	Ser	Gln	Ala	Gln	lle	Ala	Ala	Ser	Ser	His	Ala	Leu	Gly	Thr	Ser
			820					825					830		
Glu	Ala	Gln	Asp	Ala	Ser	Ser	Leu	Thr	Gln	Val	Thr	Lys	Val	His	Gln
		835					840					845			
His	Ser	Ala	Val	Gln	Gln	Asn	Tyr	Val	Ser	Pro	Leu	Gln	Ala	Thr	He
	850					855					860				
Ser	Lys	Ser	Gln	Thr	Asn	Pro	Val	Val	Lys	Leu	Ser	Asn	Asn	Pro	Gln
865					870					875					880
Leu	Ser	Cys	Ser	Ser	Ser	Leu	He	Lys	Thr	Ser	Asp	Lys	Pro	Leu	Met
				885					890					895	
Tyr	Arg	Leu	Pro	Leu	Ser	Thr	Pro	Ser	Pro	Gly	Asn	Gly	Ser	Gln	G1 y
			900					905					910		
Ser	His	Pro	Leu	Val	Ser	Arg	Thr	Val	Pro	Ser	Thr	Thr	Thr	Ser	Ser
		915					920					925			
Asn	Tyr	Leu	Ala	Lys	Ala	Met	Val	Ser	Gln	Ile	Ser	Thr	Gln	Gly	Phe
	930					935					940				
Lys	Ser	Pro	Phe	Ser	Met	Ala	Ala	Ser	Pro	Lys	Leu	Ala	Ala	Ser	Pro
945					950					955					960
Lys	Pro	Ala	Thr	Ser	Pro	Lys	Pro	Leu	Pro	Ser	Pro	Lys	Pro	Ser	Ala
				965					970					975	
Ser	Pro	Lys	Pro	Ser	Leu	Ser	Ala	Lys	Pro	Ser	Val	Ser	Thr	Lys	Leu
			980					985					990		
lle	Ser	Lys	Ser	Asn	Pro	Thr	Pro	Lys	Pro	Thr	Val	Ser	Pro	Ser	Ser
		995					1000				· ·	1005			
Ser	Ser	Pro	Asn	Ala	Leu	Val	Ala	Gln	G1 y	Ser	His	Ser	Ser	Thr	Asn
	1010				]	1015					1020				
Ser	Pro	Val	His	Lys	Gln	Pro	Ser	G1 y	Met	Asn	He	Ser	Arg	Gln	Ser
1025	5			]	1030					1035				]	1040
Pro	Thr	Leu	Asn	Leu	Leu	Pro	Ser	Ser	Arg	Thr	Ser	Gly	Leu	Pro	Pro
				1045					1050					1055	
Thr	Lys			Gln	Ala	Pro	Ser	Lys	Leu	Thr	Asn	Ser	Ser	Ser	Thr
		]	1060					1065				]	1070		
G1v	Thr	Val	G1v	lve	Acn	Sar	Lan	Sor	C1v	110	A 1 a	Mot	Acn	Val	Pro

	]	1075				]	1080					1085			
Ala	Ser	Arg	Gly	Ser	Asn	Leu	Asn	Ser	Ser	Gly	Ala	Asn	Arg	Thr	Ser
]	1090					1095					1100				
Leu	Ser	Gly	Gly	Thr	Gly	Ser	Gly	Thr	Gln	Gly	Ala	Thr	Lys	Pro	Leu
1105	5.				1110					1115					120
Ser	Thr	Pro	His	Arg	Pro	Ser	Thr	Ala	Ser	G1 y	Ser	Ser	Val	Val	Thr
				1125					130				]	1135	
Ala	Ser	Val	Gln	Ser	Thr	Ala	Gly	Ala	Ser	Leu	Leu	Ala	Asn	Ala	Ser
			1140					1145					1150		
Pro	Leu	Thr	Leu	Met	Thr	Ser	Pro	Leu	Ser	Val	Thr	Asn	Gln	Asn	Val
	]	1155				]	1160					1165			
Thr	Pro	Phe	Gly	Met	Leu	Gly	Gly	Leu	Val	Pro	Val	Thr	Met	Pro	Phe
]	1170					1175					1180				
Gln	Phe	Pro	Leu	Glu	He	Phe	Gly	Phe	Gly	Thr	Asp	Thr	Ala	Gly	Val
1189	5				1190					1195					200
Thr	Thr	Thr	Ser	Gly	Ser	Thr	Ser	Ala	Ala	Phe	His	His	Ser	Leu	Thr
				1205					1210				]	1215	
Gln	Asn	Leu	Leu	Lys	Gly	Leu	Gln	Pro	Gly	Gly	Ala	Gln	His	Ala	Ala
			1220					1225					1230		
Thr	Leu	Ser	His	Ser	Pro	Leu	Pro	Ala	His	Leu	Gln	Gln	Ala	Phe	His
	]	1235					1240					1245			
Asp	Gly	Gly	Gln	Ser	Lys	Gly	Asp	Thr	Lys	Leu	Pro	Arg	Lys	Ser	Gln
	1250				,	1255					1260				
7016	11 20	240													

<211> 1215

<212> PRT

<213> Homo sapiens

<400> 3840

Met Ala Met Arg Leu His Phe Gln Pro Pro His Pro Asn Cys Leu Tyr

1 5 10 15

Thr Val Glu Leu Glu Ala Phe Ala Ile Tyr Lys Val Leu Gl<br/>n Ser Tyr 20  $$25\,$  30

Ser Asn lle Glu Glu Asp Cys Thr Met Cys Pro Ser Trp Cys Leu Thr

		35					40					45			
Val	Arg	Ala	Arg	Gly	His	Ser	Tyr	Phe	Ala	Gly	Phe	Glu	His	His	He
	50					55					60				
Pro	Gln	Tyr	Ser	Leu	Asp	Val	Pro	Lys	Leu	Phe	Pro	Ala	Val	Ser	Ser
65					70					75					80
Gly	Glu	Pro	Thr	Tyr	Arg	Ser	Leu	Leu	Leu	Val	Asn	Lys	Asp	Cys	Lys
				85					90					95	
Leu	Leu	Thr	Phe	Ser	Leu	Ala	Pro	Gln	Arg	Gly	Ser	Asp	Val	He	Leu
			100					105					110		
Arg	Pro	Thr	Ser	Gly	Leu	Val	Ala	Pro	G1 y	Ala	His	Gln	He	He	Leu
		115					120					125			
He	Cys	Thr	Tyr	Pro	Glu	Gly	Ser	Ser	Trp	Lys	Gln	His	Thr	Phe	Tyr
	130					135					140				
Leu	Gln	Cys	Asn	Ala	Ser	Pro	Gln	Tyr	Leu	Lys	Glu	Val	Ser	Met	Tyr
145					150					155					160
Ser	Arg	Glu	Glu	Pro	Leu	Gln	Leu	Lys	Leu	Asp	Thr	His	Lys	Ser	Leu
				165					170					175	
Tyr	Phe	Lys	Pro	Thr	Trp	Val	Gly	Cys	Ser	Ser	Thr	Ser	Pro	Phe	Thr
			180					185					190		
Phe	Arg	Asn	Pro	Ser	Arg	Leu	Pro	Leu	Gln	Phe	Glu	Trp	Arg	Val	Ser
		195					200					205			
Glu	Gln	His	Arg	Lys	Leu	Leu	Ala	Val	Gln	Pro	Ser	Arg	Gly	Leu	He
	210					215					220				
Gln	Pro	Asn	Glu	Arg	Leu	Thr	Leu	Thr	Trp	Thr	Phe	Ser	Pro	Leu	Glu
225					230					235					240
Glu	Thr	Lys	Tyr	Leu	Phe	Gln	Val	Gly	Met	Trp	Val	Trp	Glu	Ala	Gly
				245					250					255	
Leu	Ser	Pro	Asn	Ala	Asn	Pro	Ala	Ala	Thr	Thr	His	Tyr	Met	Leu	Arg
			260					265					270		
Leu	Val	Gly	Val	Gly	Leu	Thr	Ser	Ser	Leu	Ser	Ala	Lys	Glu	Lys	Glu
		275					280					285			
Leu	Ala	Phe	Gly	Asn	Val	Leu	Val	Asn	Ser	Lys	Gln	Ser	Arg	Phe	Leu
	290					295					300				
Val	Leu	Leu	Asn	Asp	Gly	Asn	Cys	Thr	Leu	Tyr	Tyr	Arg	Leu	Tyr	Leu
305					310					315					320
Glu	Gln	Gly	Ser	Pro	Glu	Ala	Val	Asp	Asn	His	Pro	Leu	Ala	Leu	Gln

				325					330					335	
Leu	Asp	Arg	Thr	Glu	Gly	Ser	Met	Pro	Pro	Arg	Ser	Gln	Asp	Thr	Ile
			340					345					350		
Cys	Leu	Thr	Ala	Cys	Pro	Lys	Gln	Arg	Ser	Gln	Tyr	Ser	Trp	Thr	He
		355					360					365			
Thr	Tyr	Ser	Leu	Leu	Ser	His	Arg	Asp	Asn	Lys	Ala	Gly	Gly	Lys	Gln
	370					375					380				
Glu	Leu	Cys	Cys	Val	Ser	Leu	Val	Ala	Val	Tyr	Pro	Leu	Leu	Ser	Ile
385					390					395					400
Leu	Asp	Val	Ser	Ser	Met	Gly	Ser	Ala	Glu	Gly	Ile	Thr	Arg	Lys	His
				405					410					415	
Leu	Trp	Arg	Leu	Phe	Ser	Leu	Asp	Leu	Leu	Asn	Ser	Tyr	Leu	Glu	Arg
			420					425					430		
Asp	Pro	Thr	Pro	Cys	Glu	Leu	Thr	Tyr	Lys	Val	Pro	Thr	Arg	His	Ser
		435					440					445			
Met	Ser	Gln	He	Pro	Pro	Val	Leu	Thr	Pro	Leu	Arg	Leu	Asp	Phe	Asn
	450					455					460				
Phe	Gly	Ala	Ala	Pro	Phe	Lys	Ala	Pro	Pro	Ser	Val	Val	Phe	Leu	Ala
465					470					475					480
Leu	Lys	Asn	Ser	Gly	Val	Val	Ser	Leu	Asp	Trp	Ala	Phe	Leu	Leu	Pro
				485					490					495	
Ser	Asp	Gln	Arg	lle	Asp	Va]	Glu	Leu	Trp	Ala	Glu	Gln	Ala	Glu	Leu
			500					505					510		
Asn	Ser	Thr	Glu	Leu	His	Gln	Met	Arg	Va]	Gln	Asp	Asn	Cys	Leu	Phe
		515					520					525			
Ser	lle	Ser	Pro	Lys	Ala	Gly	Ser	Leu	Ser	Pro	Gly	Gln	Glu	Gln	Met
	530					535					540				
Val	Glu	Leu	Lys	Tyr	Ser	His	Leu	Phe	lle	Gly	Thr	Asp	His	Leu	Pro
545					550					555					560
Val	Leu	Phe	Lys	Va1	Ser	His	Gly	Arg	Glu	He	Leu	Leu	Asn	Phe	Ile
				565					570					575	
Gly	Va]	Thr	Val	Lys	Pro	Glu	Gln	Lys	Tyr	Val	His	Phe	Thr	Ser	Thr
			580					585					590		
Thr	His	Gln	Phe	lle	Pro	11e	Pro	He	Gly	Asp	Thr	Leu	Pro	Pro	Arg
		595					600					605			
Gln	He	Tvr	Glu	Leu	Tvr	Asn	Glv	Glv	Ser	Val	Pro	Val	Thr	Tyr	Glu

	610					615					620				
Val	Gln	Thr	Asp	Val	Leu	Ser	Gln	Val	Gln	Glu	Lys	Asn	Phe	Asp	His
625					630					635					640
Pro	He	Phe	Cys	Cys	Leu	Asn	Pro	Lys	Gly	Glu	He	Gln	Pro	Gly	Ser
				645					650					655	
Thr	Ala	Arg	Va]	Leu	Trp	11e	Phe	Ser	Pro	Ile	Glu	Ala	Lys	Thr	Tyr
			660					665					670		
Thr	Val	Asp	Val	Pro	lle	His	lle	Leu	Gly	Trp	Asn	Ser	Ala	Leu	Пlе
		675					680					685			
His	Phe	Gln	Gly	Val	Gly	Tyr	Asn	Pro	His	Met	Met	Gly	Asp	Thr	Ala
	690					695					700				
Pro	Phe	His	Asn	He	Ser	Ser	Trp	Asp	Asn	Ser	Ser	lle	His	Ser	Arg
705					710					715					720
Leu	Val	Va]	Pro	Gly	Gln	Asn	Val	Phe	Leu	Ser	Gln	Ser	His	He	Ser
				725					730					735	
Leu	Gly	Asn	He	Pro	Val	G1n	Ser	Lys	Cys	Ser	Arg	Leu	Leu	Phe	Leu
			740					745					750		
Asn	Asn		Ser	Lys	Asn	Glu	Glu	lle	Ala	Phe	Ser		Gln	Pro	Ser
		755					760					765			
Pro		Asp	Phe	Gly	Glu		Ser	Val	Ser	Pro		Ile	Gly	Val	Val
	770					775					780			_	
	Pro	Glu	Glu	Thr		Pro	Phe	Val	Val		Leu	Arg	Ala	Ser	
785			13.1	m.	790			,		795	,	,	m.	~	800
HIS	Ala	Ser-	Phe		Ser	Ala	Asp	Leu		Cys	Lys	Leu	Tyr		GIn
C.				805	T		,	C i	810	C1	61	т		815	C1
GIn	Leu	Met		GIn	lyr	HIS	Lys		Leu	GIn	Glu	Trp		Asp	Glu
Luc	Val	A 22.00	820	C1	Vol	Clu	Dha	825	116	Tha	Aan	Mot	830	Vol	Luc
LyS	val	835	GIH	Gju	181	Gju	Phe 840	1111	116	1111	ASP	ме t 845	Lys	val	LyS
lve	Δεσ		Cve	Cyc	Thr	Ala	Cys	Glu	Pro	Δla	Ara		Tyr	Lve	The
Lyo	850	1 111	Cys	Cys	1 (11	855	Cys	014	110	піа	860	Lys	ı'nı	Lys	1111
Len		Pro	He	Lvs	Asn		Gln	Ser	Val	Ser		Pro	Ala	Ser	Trn
865	110	110	.110	Ly5	870	0111	OIII	50.1		875	ni g	110	Mid	561	880
	Leu	Gln	Thr	Pro		Glu	Glu	Val	Ser		Pro	Cvs	Pro	Gln	
٠. ر ـ د			• •	885	.23.9				890	2  2-		5,5		895	
Pro	Ser	Pro	Glv		Len	Cvs	Len	Glv		Thr	Ala	Arg	Ala		Ala

			900					905					910		
Thr A	Asp	Tyr	Phe	Leu	Ala	Asn	Phe	Phe	Ser	Gly	Phe	Pro	Cys	His	Phe
		915					920					925			
Leu l	His	Arg	Glu	Leu	Pro	Lýs	Arg	Lys	Ala	Pro	Arg	Glu	Glu	Ser	Glu
9	930					935					940				
Thr S	Ser	Glu	Glu	Lys	Ser	Pro	Asn	Lys	Trp	Gly	Pro	Val	Ser	Lys	Gln
945					950					955					960
Lys	Lys	Gln	Leu	Leu	Val	Asp	He	Leu	Thr	Thr	lle	He	Arg	Gly	Leu
				965					970					975	
Leu (	Glu	Asp	Lys	Asn	Phe	His	Glu	Ala	Val	Asp	Gln	Ser	Leu	Val	Glu
			980					985					990		
Gln '	Val	Pro	Tyr	Phe	Arg	Gln	Phe	Trp	Asn	Glu	Gln	Ser	Thr	Lys	Phe
		995					1000					1005			
Met	Asp	Gln	Lys	Asn	Ser	Leu	Tyr	Leu	Met	Pro	Пе	Leu	Pro	Val	Pro
16	010				]	1015					1020				
Ser S	Ser	Ser	Trp	Glu	Asp	Gly	Lys	G1 y	Lys	Gln	Pro	Lys	Glu	Asp	Arg
1025				]	1030					1035					040
Pro (	Glu	His	Tyr	Pro	Gly	Leu	Gly	Lys	Lys	Glu	Glu	Gly	Glu	Glu	Glu
			]	045					1050					1055	
Lys (	Gly	Glu			Glu	Glu	Glu			Glu	Glu	Glu			Glu
Lys (	Gly				Glu	Glu				Glu	Glu				Glu
Lys (		]	Glu 1060	Glu				Leu 1065	Glu				Glu 1070	Glu	
	Glu	]	Glu 1060	Glu		Glu		Leu 1065	Glu		Glu		Glu 1070	Glu	
	Glu 1	Thr 1075	Glu 1060 Glu	Glu Glu	Glu	Glu	Leu 1080	Leu 1065 Gly	Glu Lys	Glu	Glu J	11e 1085	61u 1070 G1u	Glu Glu	Lys
Glu (	Glu 1	Thr 1075	Glu 1060 Glu	Glu Glu	Glu Glu	Glu	Leu 1080	Leu 1065 Gly	Glu Lys	Glu Val	Glu J	11e 1085	61u 1070 G1u	Glu Glu	Lys
Glu (	Glu I Glu 090	Thr 1075 Glu	Glu 1060 Glu Arg	Glu Glu Asp	Glu Glu	Glu Lys 1095	Leu 1080 Glu	Leu 1065 Gly Glu	Glu Lys Lys	Glu Val	Glu Ser 1100	lle 1085 Trp	Glu 1070 Glu Ala	Glu Glu Gly	Lys 11e
Glu (	Glu Glu O90 Pro	Thr 1075 Glu	Glu 1060 Glu Arg	Glu Glu Asp Gln	Glu Glu	Glu Lys 1095 Glu	Leu 1080 Glu Ser	Leu 1065 Gly Glu Gln	Glu Lys Lys Glu	Glu Val	Glu Ser 1100 Met	lle 1085 Trp	Glu 1070 Glu Ala	Glu Glu Gly Gln	Lys 11e
Glu (Glu (Gly )	Glu Glu O90 Pro	Thr 1075 Glu Thr	Glu 1060 Glu Arg Pro	Glu Glu Asp Gln	Glu Glu l Pro	Glu Lys 1095 Glu	Leu 1080 Glu Ser	Leu 1065 Gly Glu Gln	Glu Lys Lys Glu	Glu Val Ser	Glu Ser 1100 Met	lle 1085 Trp Gln	Glu 1070 Glu Ala Trp	Glu Glu Gly Gln	Lys 11e Trp
Glu ( Glu ( Gly   1105	Glu Glu O90 Pro	Thr 1075 Glu Thr	Glu 1060 Glu Arg Pro	Glu Glu Asp Gln	Glu Glu l Pro	Glu Lys 1095 Glu	Leu 1080 Glu Ser	Leu 1065 Gly Glu Gln Lys	Glu Lys Lys Glu	Glu Val Ser	Glu Ser 1100 Met	lle 1085 Trp Gln	Glu 1070 Glu Ala Trp	Glu Glu Gly Gln	Lys 11e Trp
Glu ( Glu ( Gly   1105	Glu Glu 090 Pro Gln	Thr 1075 Glu Thr	Glu 1060 Glu Arg Pro	Glu  Asp  Gln  Asn  125	Glu Glu Pro HHO Val	Glu Lys 1095 Glu Met	Leu 1080 Glu Ser Val	Leu 1065 Gly Glu Gln Lys	Glu Lys Lys Glu Glu H130	Glu Val Ser III5 Glu	Glu Ser 1100 Met Gln	lle 1085 Trp Gln	Glu 1070 Glu Ala Trp	Glu Gly Gln Asp	Lys 11e Trp 120 Glu
Glu ( Glu ( Gly   1105 Gln (	Glu Glu 090 Pro Gln	Thr 1075 Glu Thr Gln	Glu 1060 Glu Arg Pro	Glu  Asp  Gln  Asn  125	Glu Glu Pro HHO Val	Glu Lys 1095 Glu Met	Leu 1080 Glu Ser Val	Leu 1065 Gly Glu Gln Lys	Glu Lys Lys Glu Glu H130	Glu Val Ser III5 Glu	Glu Ser 1100 Met Gln	lle 1085 Trp Gln Glu Leu	Glu 1070 Glu Ala Trp	Glu Gly Gln Asp	Lys 11e Trp 120 Glu
Glu ( Glu ( Gly   1105 Gln (	Glu GGlu 090 Pro Gln	Thr 1075 Glu Thr Gln	Glu 1060 Glu Arg Pro Leu Ile	Glu Asp Gln Asn 125 Arg	Glu Glu Pro HH0 Val	Glu Lys 1095 Glu Met	Leu 1080 Glu Ser Val	Leu 1065 Gly Glu Lys Ala	Lys Lys Glu Glu H130 Phe	Glu Val Ser 1115 Glu	Glu Ser 1100 Met Gln Asn	lle 1085 Trp Gln Glu Leu	Glu 1070 Glu Ala Trp Gln Gln	Glu Gly Gln Asp H135	Lys 11e Trp 120 Glu Ala
Glu (Glu (Gly III)) Gly III III05 Gln (Gly III)	Glu J Glu 090 Pro Gln Glu	Thr 1075 Glu Thr Gln	Glu 1060 Glu Arg Pro Leu Ile	Glu Asp Gln Asn 125 Arg	Glu Glu Pro HH0 Val	Glu Lys 1095 Glu Met Leu	Leu 1080 Glu Ser Val	Leu 1065 Gly Glu Lys Ala	Lys Lys Glu Glu H130 Phe	Glu Val Ser 1115 Glu	Glu Ser 1100 Met Gln Asn	lle 1085 Trp Gln Glu Leu	Glu 1070 Glu Ala Trp Gln Gln	Glu Gly Gln Asp H135	Lys 11e Trp 120 Glu Ala
Glu (Glu (Gly III)) Gly III III05 Gln (Gly III)	Glu I Glu 090 Pro Glu Leu	Thr 1075 Glu Thr Gln Ala Glu 155	Glu 1060 Glu Arg Pro Leu 11e 1140 Asn	Glu Asp Gln Asn 125 Arg	Glu Glu Pro HHO Val Arg	Glu Lys 1095 Glu Met Leu	Leu 1080 Glu Ser Val Pro Asn	Leu 1065 Gly Glu Lys Ala 1145	Lys Lys Glu Glu H130 Phe	Glu Val Ser Il15 Glu Ala	Glu Ser 1100 Met Gln Asn	11e 1085 Trp Gln Glu Leu Ala	Glu 1070 Glu Ala Trp Gln Gln 1150 Ser	Glu Gly Gln Asp H135 Glu Arg	Lys Trp 1120 Glu Ala
Glu (Glu (Gly III)) Gly (Glu (Glu III)) Lys (Glu III)	Glu I Glu 090 Pro Glu Leu	Thr 1075 Glu Thr Gln Ala Glu 155	Glu 1060 Glu Arg Pro Leu 11e 1140 Asn	Glu Asp Gln Asn 125 Arg	Glu Glu Pro HH0 Val Arg Lle Ser	Glu Lys 1095 Glu Met Leu	Leu 1080 Glu Ser Val Pro Asn	Leu 1065 Gly Glu Lys Ala 1145	Lys Lys Glu Glu H130 Phe	Glu Val Ser 1115 Glu Ala Val	Glu Ser 1100 Met Gln Asn	11e 1085 Trp Gln Glu Leu Ala	Glu 1070 Glu Ala Trp Gln Gln 1150 Ser	Glu Gly Gln Asp H135 Glu Arg	Lys Trp 1120 Glu Ala

<210> 3841

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3841

Met Gly Glu Asn Ala Val Ile Pro Phe Leu Ser Pro Gln Lys Gly His

1 5 10 15

Gly Cys Arg Glu Trp Trp Leu Met Pro 11e 11e Pro Ala Leu Trp Glu 20 25 30

Ala Glu Val Gly Arg Ser Pro Glu Val Arg Ser Leu Arg Pro Ala Trp
35 40 45

Leu Thr Trp Arg Asn Pro Phe Ser Thr Lys Asn Thr Lys Ile Ser Gln 50 55 60

Ser Trp Trp Arg Ala Pro Val Ile Pro Ala Thr Trp Glu Thr Glu Ala 65 70 75 80

Gly Glu Ser Leu Glu Pro Gly Arg Leu Glu Val Ala Val Ser Arg Asp 85 90 95

Trp Ala Thr Ala Leu Gln Pro Gly Gln Trp Ser lle Ser Lys Lys Lys 100 105 110

Lys Glu Arg Lys Lys Glu Gly Gly Cys His Gly
115 120

<210> 3842

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3842

Met Arg Gly Leu Gln Trp Asn Gln Asp Pro Glu His Arg Arg Val Gly

1 5 10 15 Ser Pro Ala Cys Ser Ala Ser Ser Phe Leu Leu Leu Leu Leu Phe Glu 25 Thr Glu Ser Cys Ser Val Phe Arg Leu Glu Cys Ser Gly Arg lle Leu 40 Ala His Cys Asn Leu His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser 55 60 Ala Ser Arg Val Ala Gly Thr Thr Gly Met Cys His His Ala Leu Leu 70 75 65 Ile Phe Val Phe Leu Val Glu Met Gly Phe His Tyr Val Gly Gln Val 85 90 95 Gly Leu Asp Leu Leu Thr Leu 100 <210> 3843 <211> 151 <212> PRT <213> Homo sapiens <400> 3843 Met Val Pro Met His Cys Phe Trp Val Ile Ile Arg Arg Arg Met Asn 10 Ser Gly His Trp Ala Thr Asp Gly Gln Leu Leu Ala Pro Gly Leu Gly 20 25 30 Leu Cys Val Gly Thr His Ala Ser Ala Leu Thr Cys Ser Cys Ser Ser 40 Met Val Pro Ser Leu lle Cys Gly Val Gln Arg Arg Arg Met Ala Ala 50 55 Ser Leu Leu Tyr Pro Val Tyr Pro Ser Pro Cys Cys Trp His Leu Arg 75 Leu Ser Pro His Ala Leu Ile Ser Leu Cys Thr Thr Tyr Gln Glu Val 90 Leu Gln Trp Trp Leu Cys Leu Pro Ser Leu Arg Thr Leu Lys Thr Leu 100 105 110

Ala Leu Pro Arg Gln Gln Ala Leu Pro Thr Ser Ala Phe Pro Pro Asn

Asp Met Ala Met Phe Cys Phe Pro Arg Ser 11e Leu Ser His Ser Gln Gln Gly Val Asp Ile Leu Val <210> 3844 <211> 267 <212> PRT <213> Homo sapiens <400> 3844 Met Pro Thr Leu His Arg Glu Arg Gln Gly Leu Ser Pro Lys Glu Ala Met Leu Cys Phe 11e Gln Glu Ala Cys Arg Leu Glu Asp Val Pro Val His Phe Phe Arg Leu His Lys Asp Lys Glu Gly Arg Pro Thr Val Ile Leu Gly Leu Ala Leu Arg Gly Val His Ile Tyr Gln Glu Val Asp Arg Ala Pro Gln Leu Leu Tyr Asp Leu Pro Trp Pro His Val Gly Lys Leu Ala Phe Leu Gly Lys Lys Leu Glu 11e Gln Leu Asp Gly Leu Pro Ala Ala Gln Lys Leu Val Tyr Tyr Thr Gly Cys Thr Trp Arg Ser Arg His Leu Leu His Leu Leu Arg Ala Ser His Gln Leu His Leu Arg Val Arg Pro Thr Leu Gln Gln Leu Arg Gln Arg Glu Glu Ala Glu Glu Lys Gln His Tyr Arg Glu Ser Tyr lle Ser Asp Glu Leu Glu Leu Asp Leu Ala Ser Arg Ser Phe Pro Gly Ser Gly Val Ser Ser Gln His Cys Pro 

His Cys Leu Ser Arg His Ser Ala Asp Ser His Gly Ser Ser Tyr Thr

180 185 190 Ser Gly Ile Lys Ala Asn Ser Trp Leu Arg Glu Ser Arg Glu Met Ser 200 205 Val Asp Val Pro Leu Glu Val His Gly Leu His Glu Lys Glu Pro Ser 210 215 220 Ser Ser Pro Arg Thr Ser Arg Ser His Pro Ser Thr Arg Gly Asp Ser 230 235 Gln Ala Thr Arg Gln Glu Pro Cys Thr Gln Val Arg Thr Arg Gly Gln 250 245 255 Ser Ala Glu Ala Val His Gln Phe Pro Pro Val 260 265

<210> 3845

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3845

Met Leu Glu Glu Pro Phe Ser Pro Pro Leu Arg Cys Gly Gly Pro Ser 1 5 10 15

Leu Gly Trp Pro Arg Pro Glu Pro Ala Pro Ser Ala Cys Arg Glu Val 20 25 30

Trp Arg Glu Arg Pro Gln Ala Gly Thr Gly Ala Ala Arg Ser Asp Gly
35 40 45

Arg Pro Ala Arg Val Pro Ser Gly Ser Gly Leu Ser Gly Ser Cys Gly 50 55 60

Gly Gly Ala Gly Tyr Pro Ser Thr Ala Gly Leu Pro Ala Pro Arg Ser 65 70 75 80

Asn Ser Arg Ser Ala Ser Ala Ala Ser Pro Pro Gly Arg Ala Arg Asp

85

90

95

Leu Gln Pro Ala Leu Pro Glu Ser Thr Arg Gly Gly Leu Pro Ala Ala 100 105 110

Lys Pro Pro

<211> 129 <212> PRT <213> Homo sapiens <400> 3846 Met Ser Ala His Gln Gln Gly Glu Thr Ser Leu Pro Arg Ala Gln Gly 1 10 15 Gly Arg Ser Glu Leu Ala Asp Ser Ser Trp Lys Pro Val Arg Gly Ala 25 30 Val Pro Arg Gly Met Thr Leu Ala Pro Ala Gln Ile Leu Leu Cys 40 45 Gly Leu Pro Gly Leu Pro Ser Pro Pro Pro Gly Leu Leu Trp Thr Asp 55 Ile Ala Gln Ala Gly Val Gln Trp Cys Asp Leu Gly Ser Leu Gln Pro 70 75 Pro Pro Pro Arg Phe Lys Leu Phe Ser Cys Leu Ser Leu Leu Ser Ser 85 90 Trp Asp Tyr Arg Ser Trp Trp Leu Trp Leu Val 11e Pro Ala Ser Cys 100 105 110 Trp Leu Gln Val Asp Asp Ala His Leu Ala Ala Asp Asp Leu Cys Thr 120 125 Lys <210> 3847 <211> 217 <212> PRT <213> Homo sapiens <400> 3847 Met Trp Val Thr Lys Phe Lys Gly Arg Glu Lys Lys Leu Met Lys 11e

10

Glu Ala His Leu Gly Leu Pro Ser Phe Ser Gly Ser Thr Leu Asp Phe

15

<210> 3846

1

Phe	Arg	Ala	Trp	Ala	Leu	Ser	Arg	Glu	Leu	His	Leu	lle	Pro	Trp	Ala
		35					40					45			
Ala	Arg	Ser	Ser	Leu	Gly	Pro	Arg	Leu	Trp	Arg	Leu	Leu	Gly	Gly	Pro
	50					55					60				
Phe	Leu	Cys	Leu	His	Ser	Arg	Arg	Leu	Ala	Gly	Glu	Thr	Gln	Asp	Leu
65					70					75					80
Arg	Leu	Pro	Gly	His	Leu	His	Cys	Cys	Pro	Leu	Gly	Phe	Cys	Leu	Arg
				85					90					95	
Leu	Cys	Leu	Gly	Leu	Cys	Leu	Ser	Leu	Arg	Leu	Gln	Leu	Gly	Gly	Arg
			100					105					110		
Leu	Leu	Val	Arg	Ala	Arg	Phe	Gly	Gly	Pro	Gln	Gly	Phe	Ser	Ser	Pro
		115					120					125			
Gly	Thr	Leu	Pro	Leu	Leu	Val	Asp	G1 y	His	Arg	Gly	Arg	Ser	Pro	Cys
	130					135					140				
Leu	Gly	Leu	His	Pro	Ala	Val	Ala	Glu	Asp	Leu	Val	Asp	Val	Glu	Pro
145					150					155					160
Pro	Val	Asp	Val	Gly	Leu	Gln	His	Val	Val	Asp	Glu	Val	Leu	Ala	Leu
				165					170					175	
Ala	Cys	Gln	Val	Leu	Gly	Ala	Trp	Glu	Val	Asp	Ala	Val	Leu	Leu	Leu
			180					185					190		
Asp	Thr	Gln	His	Leu	Leu	Asp	Val	Gly	Val	Val	Val	G1 y	His	Gly	Ala
		195					200					205			
Ala	Asp	His	Asp	Val	Glu	Asp	His	Ala							
	210					215									
<210	)> 38	348													
<211	> 14	13													
<212	2> PF	RT													
<213	3> Ho	omo s	sapie	ens											

<400> 3848

Met Lys Ser Gln Met Glu Leu Arg Ile Lys Asp Leu Glu Phe Lys Leu I 5 5 10 15

Tyr Lys Ala Arg Thr Ser Gln Ala Asp Cys Asn Thr Thr Glu Leu Glu

Lys Tyr Lys Glu Leu Tyr Leu Glu Glu Leu Lys Leu Arg Glu Ser Leu Ser Asp Glu Leu Asn Lys Arg Lys Glu Ile Leu Ala Asp Val Ser Thr Lys Leu Leu Gln Glu Lys Glu Trp Ser Arg Ser Leu Phe Thr Ser His Thr Thr Arg Pro Val Leu Glu Ser Ala Cys Asn Gly Asn Leu Asn Glu Asn Leu Gly Leu Ser Arg Ile His Ile Pro Arg Glu Ala Leu Arg Ile Pro Thr Leu Asn Ser Leu Ser Ser Asn Ile Arg Met Glu Ser Asp Leu Ser Lys Glu Asp Lys Asn Gly Gly His Phe Leu Glu Leu Gln Ala 

<210> 3849

<211> 609

<212> PRT

<213> Homo sapiens

<400> 3849

Met Leu Leu Leu Ala Ser Thr Glu Pro Ser Ser Leu Cys Tyr Val Glu l 

Thr Val Asp Ile Asp Gly Glu Thr Asn Leu Lys Phe Arg Gln Ala Leu 

Met Val Thr His Lys Glu Leu Ala Thr Ile Lys Lys Met Ala Ser Phe 

Gln Gly Thr Val Thr Cys Glu Ala Pro Asn Ser Arg Met His His Phe 

Val Gly Cys Leu Glu Trp Asn Asp Lys Lys Tyr Ser Leu Asp Ile Gly 

Asn Leu Leu Leu Arg Gly Cys Arg Ile Arg Asn Thr Asp Thr Cys Tyr 

Gly Leu Val 11e Tyr Ala Gly Phe Asp Thr Lys 11e Met Lys Asn Cys

			100					105					110		
Gly	Lys	He	His	Leu	Lys	Arg	Thr	Lys	Leu	Asp	Leu	Leu	Val	Asn	Lys
		115					120					125			
Leu	Val	Val	Val	lle	Phe	He	Ser	Va]	Val	Leu	Val	Cys	Leu	Va]	Leu
	130					135					140				
Ala	Phe	Gly	Phe	Gly	Phe	Ser	Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr
145					150					155					160
Tyr	Leu	Ser	Gly	Val	His	Gly	Ser	Ser	Val	Ala	Ala	Glu	Ser	Phe	Phe
				165					170					175	
Val	Phe	Trp	Ser	Phe	Leu	Ile	Leu	Leu	Ser	Val	Thr	Ile	Pro	Met	Ser
			180					185					190		
Met	Phe	He	Leu	Ser	Glu	Phe	He	Tyr	Leu	Gly	Asn	Ser	Val	Phe	He
		195					200					205			
Asp	Trp	Asp	Val	Gln	Met	Tyr	Tyr	Lys	Pro	Gln	Asp	Val	Pro	Ala	Lys
	210					215					220				
Ala	Arg	Ser	Thr	Ser	Leu	Asn	Asp	His	Leu	Gly	Gln	Val	Glu	Tyr	Ile
225					230					235					240
Phe	Ser	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Gln	Asn	Пe	Leu	Thr	Phe	Asn
				245					250					255	
Lys	Cys	Cys	lle	Ser	Gly	Arg	Val	Tyr	Gly	Pro	Asp	Ser	Glu	Ala	Thr
			260					265					270		
Thr	Arg	Pro	Lys	Glu	Asn	Pro	Tyr	Leu	Trp	Asn	Lys	Phe	Ala	Asp	Gly
		275					280					285			
Lys	Leu	Leu	Phe	His	Asn	Ala	Ala	Leu	Leu	His	Leu	Val	Arg	Thr	Asn
	290					295					300				
Gly	Asp	Glu	Ala	Val	Arg	Glu	Phe	Trp	Arg	Leu	Leu	Ala	lle	Cys	His
305					310					315					320
Thr	Val	Met	Va]	Arg	Glu	Ser	Pro	Arg	Glu	Arg	Pro	Asp	Gln	Leu	Leu
				325					330					335	
Tyr	Gln	Ala	Ala	Ser	Pro	Asp	Glu	Gly	Ala	Leu	Val	Thr	Ala	Ala	Arg
			340					345					350		
Asn	Phe	Gly	Tyr	Val	Phe	Leu	Ser	Arg	Thr	Gln	Asp	Thr	Val	Thr	He
		355					360					365			
Met	Glu	Leu	Gly	Glu	Glu	Arg	Val	Tyr	Gln	Val	Leu	Ala	lle	Met	Asp
	370					375					380				
Phe	Asn	Ser	Thr	Arg	Lys	Arg	Met	Ser	Val	Leu	Val	Arg	Lys	Pro	G1u

385					390					395					400
Gly	Ala	He	Cys	Leu	Tyr	Thr	Lys	Gly	Ala	Asp	Thr	Val	lle	Phe	Glu
				405					410					415	
Arg	Leu	His	Arg	Arg	Gly	Ala	Met	Glu	Phe	Ala	Thr	Glu	Glu	Ala	Leu
			420					425					430		
Ala	Ala	Phe	Ala	Gln	Glu	Thr	Leu	Arg	Thr	Leu	Cys	Leu	Ala	Tyr	Arg
		435				÷	440					445			
Glu	Val	Ala	Glu	Asp	He	Tyr	Glu	Asp	Trp	Gln	Gln	Arg	His	Gln	Glu
	450					455					460				
Ala	Ser	Leu	Leu	Leu	Gln	Asn	Arg	Ala	Gln	Ala	Leu	Gln	Gln	Val	Tyr
465					470					475					480
Asn	Glu	Met	Glu	Gln	Asp	Leu	Arg	Leu	Leu	Gly	Ala	Thr	Ala	lle	Glu
				485					490					495	
Asp	Arg	Leu	Gln	Asp	Gly	Val	Pro	Glu	Thr	lle	Lys	Cys	Leu	Lys	Lys
			500					505					510		
Ser	Asn	He	Lys	Ile	Trp	Val	Leu	Thr	Gly	Asp	Lys	Gln	Glu	Thr	Ala
		515					520					525			
Val	Asn	Ile	Gly	Phe	Ala	Cys	Glu	Leu	Leu	Ser	Glu	Asn	Met	Leu	Ile
	530					535					540				
Leu	Glu	Glu	Lys	Glu	He	Ser	Arg	He	Leu	Glu	Thr	Tyr	Trp	Glu	Asn
545					550					555					560
Ser	Asn	Asn	Leu	Leu	Thr	Arg	Glu	Ser	Leu	Ser	Gln	Val	Lys	Leu	Ala
				565					570					575	
Leu	Val	lle	Asn	Gly	Asp	Phe	Leu	Ala	Pro	Val	Pro	Ala	Val	Pro	Glu
			580					585					590		
Val	Arg	Ala	Pro	Ala	Gly	Cys	Thr	Ala	Ser	Pro	G1 y	Leu	Gln	Ser	Pro
		595					600					605			

Pro

<211> 483

<212> PRT

<213> Homo sapiens

<400	)> 38	350													
Met	Thr	Met	Lys	Val	Asp	Met	Ser	Gly	Leu	Gln	Ala	Lys	Asn	Glu	11e
1				5					10					15	
Leu	Ser	Glu	Lys	Leu	Ser	Asn	Ala	Glu	Ser	Lys	He	Asn	Ser	Leu	G1n
			20					25					30		
Ile	Gln	Leu	His	Asn	Thr	Arg	Asp	Ala	Leu	Gly	Arg	Glu	Ser	Leu	Ile
		35					40					45			
Leu	Glu	Arg	Val	Gln	Arg	Asp	Leu	Ser	Gln	Thr	Gln	Cys	Gln	Lys	Lys
	50					55					60				
Glu	Thr	Glu	Gln	Met	Tyr	Gln	Ile	Glu	Gln	Ser	Lys	Leu	Lys	Lys	Tyr
65					70					75					80
He	Ala	Lys	Gln	Glu	Ser	Val	Glu	Glu	Arg	Leu	Ser	Gln	Leu	Gln	Ser
				85					90					95	
Glu	Asn	Met	Leu	Leu	Arg	Gln	Gln	Leu	Asp	Asp	Ala	His	Lys	Lys	Ala
			100					105					110		
Asn	Ser	Gln	Glu	Lys	Thr	Ser	Ser	Thr	lle	Gln	Asp	Gln	Phe	His	Ser
		115					120					125			
Ala	Ala	Lys	Asn	Leu	Arg	Ala	Glu	Ser	Glu	Lys	Gln	Ile	Leu	Ser	Leu
	130					135					140				
G1n	Glu	Lys	Asn	Lys	Glu	Leu	Met	Asp	Glu	Tyr	Asn	His	Leu	Lys	Glu
145					150					155					160
Arg	Met	Asp	Gln	Cys	Glu	Lys	Glu	Lys	Ala	Gly	Arg	Lys	Val	Val	Met
				165					170					175	
Arg	Glu	Phe	Gln	Gln	Glu	Trp	Thr	Asp	Leu	Leu	Lys	Gln	Gln	Pro	Thr
			180					185				٠	190		
Ser	Glu		Thr	Ser	Arg	Cys	His	He	Asn	Leu	Asp	Glu	Thr	Gln	Asp
		195					200					205			
Ser	-	Lys	Lys	Leu	Gly		He	Arg	Ser	Glu		Asp	Leu	Thr	Glu
	210					215					220				
	Gln	Glu	Thr	Val		Ser	Arg	Cys	Leu		Leu	Asp	Ala	Glu	
225					230					235					240
G] u	Val	Leu	G1n		Gln	Gln	Thr	Leu		Ser	Met	Lys	Ala	He	Gln
				245					250					255	
Lys	Gln	Cys		Thr	Leu	Gln	Lys		Lys	Lys	Gln	Leu		Gln	Glu
			260			_		265					270		
Val	Val	Asn	Leu	Lys	Ser	Tyr	Met	Glu	Arg	Asn	Met	Leu	Glu	Arg	Gly

		275					280					285			
Lys	Ala	Glu	Trp	His	Lys	Leu	Leu	He	Glu	Glu	Arg	Ala	Arg	Lys	Glu
	290					295					300				
He	Glu	Glu	Lys	Leu	Asn	Glu	Ala	He	Leu	Thr	Leu	Gln	Lys	Gln	Ala
305					310					315					320
Ala	Val	Ser	His	Glu	Gln	Leu	Val	Gln	Leu	Arg	Glu	Asp	Asn	Thr	Thr
				325					330					335	
Ser	Ile	Lys	Thr	Gln	Met	Glu	Leu	Thr	He	Lys	Asp	Leu	Glu	Ser	Glu
			340					345					350		
He	Ser	Arg	Ile	Lys	Thr	Ser	Gln	Ala	Asp	Phe	Asn	Lys	Thr	Glu	Leu
		355					360					365			
Glu	Arg	Tyr	Lys	Glu	Leu	Tyr	Leu	Glu	Glu	Val	Lys	Val	Arg	Glu	Ser
	370					375					380				
Leu	Ser	Asn	Glu	Leu	Ser	Arg	Thr	Asn	Glu	Met	Пе	Ala	Glu	Val	Ser
385					390					395					400
Thr	Gln	Leu	Thr	Val	Glu	Lys	Glu	Gln	Thr	Arg	Ser	Arg	Ser	Leu	Phe
				405					410					415	
Thr	Ala	Tyr	Ala	Thr	Arg	Pro	Val	Leu	Glu	Ser	Pro	Cys	Val	Gly	Asn
			420					425					430		
Leu	Asn	Asp	Ser	Glu	Gly	Leu	Asn	Arg	Lys	His	lle	Pro	Arg	Lys	Lys
		435					440					445			
Arg	Ser	Ala	Leu	Lys	Лsp	Met	Glu	Ser	Tyr	Leu	Leu	Lys	Val	Ser	Tyr
	450					455					460				
	Phe	Ser	Phe	Gly	Val	Gln	He	Ser	Asp	Arg	Thr	Leu	Val	Cys	-
465					470					475					480
Leu	Val	Lys													

<211> 365

<212> PRT

<213> Homo sapiens

<400> 3851

Met Val Arg Val Pro Ser Pro Phe Gly Pro Arg Glu Gln Ser Thr Tyr

1				5					10					15	
Val	Leu	Val	Arg	Asp	Ala	Glu	Ala	Glu	Asn	Pro	Gly	Ala	Pro	Gly	Ser
			20					25					30		
Pro	Leu	Asn	Val	Arg	Cys	Leu	Asp	Val	Asn	Arg	Asp	Cys	Leu	He	Leu
		35					40					45			
Thr	Trp	Ala	Pro	Pro	Ser	Asp	Thr	Arg	Gly	Asn	Pro	He	Thr	Ala	Tyr
	50					55					60				
Thr	He	Glu	Arg	Cys	Gln	Gly	Glu	Ser	Gly	Glu	Trp	He	Ala	Cys	His
65					70					75					80
Glu	Ala	Pro	Gly	Gly	Thr	Cys	Arg	Cys	Pro	Ile	Gln	Gly	Leu	Val	Glu
				85					90					95	
Gly	Gln	Ser	Tyr	Arg	Phe	Arg	Val	Arg	Ala	lle	Ser	Arg	Val	Gly	Ser
			100					105					110		
Ser	Val	Pro	Ser	Lys	Ala	Ser	Glu	Leu	Val	Val	Met	Gly	Asp	His	Asp
		115					120					125			
Ala		Arg	Arg	Lys	Thr		Tle	Pro	Phe	Asp	Leu	Gly	Asn	Lys	He
	130					135					140				
	He	Ser	Thr	Asp	Ala	Phe	Glu	Asp	Thr		Thr	lle	Pro	Ser	
145					150					155					160
Pro	Thr	Asn	Val		Ala	Ser	Glu	He		Glu	Ala	Tyr	Val		Leu
. 1	r.	6.1	C.1	165	c	Б		61	170		ь		m)	175	0
Ala	Trp	61 <b>u</b>		Pro	Ser	Pro	Arg		Arg	Ala	Pro	Leu		lyr	Ser
Γ	¢1	1	180	17 1	7.1	C I	C	185	TI	т	C1	4.1	190	C	C
Leu	61u		ser	vai	He	СТУ		ыу	ınr	irp	Glu		116	Ser	Ser
Clu	Sor	195 Pro	Val	Ana	Ser	Dno	200	Dho	110	Vo.1	Lau	205	Lau	Cl.	Lua
Olu	210	110	val	Mg	561	215	Mg	rne	MIA	val	220	nsp	Leu	Gru	Lys
Lvs		Ser	Tyr	Val	Phe		Val	Aro	Ala	Met		Gln	Tyr	Glv	Leu
225		50.1	1,1	, 01	230	8		, 11 S	7,10	235	71311	OIII	1,1	Gry	240
	Asp	Pro	Ser	Glu	Pro	Ser	Glu	Pro	He		Leu	Arg	Glv	Pro	
				245					250	,,,,		6	,	255	
Ala	Thr	Leu	Pro		Pro	Ala	Gln	Val		Ala	Phe	Arg	Asp		Gln
			260					265					270		
Thr	Ser	Va]	Ser	Leu	Thr	Trp	Asp		Va]	Lys	Asp	Pro		Leu	Leu
		275					280					285			
Glv	Tvr	Tvr	He	Tvr	Ser	Aro	Lvs	Val	Glv	Thr	Ser	Glu	Trn	Gln	Thr

Val Asn Asn Lys Pro 11e Gln Gly Thr Arg Tyr Val Cys Pro Pro Val Ser Val Cys Ser His Thr Ala lle Lys Thr Tyr Leu Arg Leu Gly Asn Phe Phe Tyr Lys Glu Lys Arg Phe Asn Gln Leu Thr Val Leu Arg Pro Ile Gln Ala Ser Phe Ser Gly Glu Ala Ser Gly Asn Leu 

⟨210⟩ 3852

<211> 566

<212> PRT

<213> Homo sapiens

<400> 3852

Met Ala Met Gly Arg Gly Glu Gly Leu Val Gly Asp Gly Pro Val Asp Met Arg Thr Ser His Ser Asp Met Lys Ser Glu Arg Arg Pro Pro Ser Pro Asp Val Ile Val Leu Ser Asp Asn Glu Gln Pro Ser Ser Pro Arg Val Asn Gly Leu Thr Thr Val Ala Leu Lys Glu Thr Ser Thr Glu Ala Leu Met Lys Ser Ser Pro Glu Glu Arg Glu Arg Met Ile Lys Gln Leu Lys Glu Glu Leu Arg Leu Glu Glu Ala Lys Leu Val Leu Leu Lys Lys Leu Arg Gln Ser Gln Ile Gln Lys Glu Ala Thr Ala Gln Lys Pro Thr Gly Ser Val Gly Ser Thr Val Thr Thr Pro Pro Pro Leu Val Arg Gly Thr Gln Asn Ile Pro Ala Gly Lys Pro Ser Leu Gln Thr Ser Ser Ala

Arg Met Pro Gly Ser Val Ile Pro Pro Pro Leu Val Arg Gly Gly Gln

145					150					155					160
Gln	Ala	Ser	Ser	Lys	Leu	Gly	Pro	Gln	Ala	Ser	Ser	Gln	Val	Val	Met
				165					170					175	
Pro	Pro	Leu	Val	Arg	Gly	Ala	Gln	G1n	He	His	Ser	He	Arg	Gln	His
			180					185					190		
Ser	Ser	Thr	Gly	Pro	Pro	Pro	Leu	Leu	Leu	Ala	Pro	Arg	Ala	Ser	Va1
		195					200					205			
Pro	Ser	Val	Gln	He	Gln	Gly	Gln	Arg	lle	Ile	Gln	Gln	Gly	Leu	11e
	210					215					220				
Arg	Val	Ala	Asn	Val	Pro	Asn	Thr	Ser	Leu	Leu	Val	Asn	lle	Pro	G1n
225					230					235					240
Pro	Thr	Pro	Ala	Ser	Leu	Lys	G] y	Thr	Thr	Ala	Thr	Ser	Ala	Gln	Ala
				245					250					255	
Asn	Ser	Thr	Pro	Thr	Ser	Val	Ala	Ser	Val	Val	Thr	Ser	Ala	Glu	Ser
			260					265					270		
Pro	Ala	Ser	Arg	Gln	Ala	Ala	Ala	Lys	Leu	Ala	Leu	Arg	Lys	Gln	Leu
		275					280					285			
Glu	Lys	Thr	Leu	Leu	Glu	He	Pro	Pro	Pro	Lys	Pro	Pro	Ala	Pro	Glu
	290					295					300				
Met	Asn	Phe	Leu	Pro	Ser	Ala	Ala	Asn	Asn	Glu	Phe	lle	Tyr	Leu	Val
305					310					315					320
Gly	Leu	Glu	Glu	Val	Val	Gln	Asn	Leu	Leu	G1u	Thr	Gln	Ala	Gly	Arg
				325					330					335	
Met	Ser	Ala	Ala	Thr	Val	Leu	Ser	Arg	Glu	Pro	Tyr	Met	Cys	Ala	Gln
			340					345					350		
Cys	Lys	Thr	Asp	Phe	Thr	Cys	Arg	Trp	Arg	Glu	Glu	Lys	Ser	Gly	Ala
		355					360					365			
He	Met	Cys	Glu	Asn	Cys	Met	Thr	Thr	Asn	Gln	Lys	Lys	Ala	Leu	Lys
	370					375					380				
Val	Glu	His	Thr	Ser	Arg	Leu	Lys	Ala	Ala	Phe	Val	Lys	Ala	Leu	Gln
385					390					395					400
GIn	Glu	Gln	Glu	Пе	Glu	GIn	Arg	Leu	Leu	Gln	GIn	Gly	Thr	Ala	Pro
				405					410					415	
Ala	Gln	Ala	Lys	Ala	Glu	Pro	Thr	Ala	Ala	Pro	His	Pro	Val	Leu	Lys
			420					425					430		
Gln	Val	He	lve	Pro	Arø	Aro	Lve	Len	Ala	Phe	Arø	Ser	G1v	G1n	Ala

435 440 445 Arg Asp Trp Ser Asn Gly Ala Val Leu Gln Ala Ser Ser Gln Leu Ser 455 460 Arg Gly Ser Ala Thr Thr Pro Arg Gly Val Leu His Thr Phe Ser Pro 470 475 480 Ser Pro Lys Leu Gln Asn Ser Ala Ser Ala Thr Ala Leu Val Ser Arg 485 490 Thr Gly Arg His Ser Glu Arg Thr Val Ser Ala Gly Lys Gly Ser Ala 500 505 510 Thr Ser Asn Trp Lys Lys Thr Pro Leu Ser Thr Gly Gly Thr Leu Ala 520 525 Phe Val Ser Pro Ser Leu Ala Val His Lys Ser Ser Ser Ala Val Asp 535 540 Arg Gln Arg Glu Tyr Leu Leu Asp Met Ile Pro Pro Arg Ser Ile Pro 545 550 555 560 Gln Ser Ala Thr Trp Lys 565

<210> 3853

<211> 357

<212> PRT

<213> Homo sapiens

<400> 3853

Met His Trp Leu Ala Ser Ala Thr Gln Thr Ser Ala Ser Ile Val Ser 1 5 10 15

Ser Ser Leu Leu Ser Ala Val Asp Val Ser Ser Ser Leu Thr Met Ser 20 25 30

Glu Tyr Phe Gln Asn Thr Ser Leu Pro Gly Thr Ala Asn Ser Arg Gln 35 40 45

Phe Ser Leu Pro Val Val Ser Asn Ala Ala Phe Leu Thr Gly Ser 11e 50 55 60

Ser Asn Phe Ser Arg Ala Ser Ala Pro Ala IIe Ser Ser Ala Trp Leu 65 70 75 80

Gln Pro Ser Ala Ser Gly Thr Ser Phe Gln Pro Leu Met Gly Ser Ala

				85					90					95	
Tyr	Leu	Tyr	G1n	His	Ser	Ser	Thr	Thr	Met	Leu	Ser	Gly	Val	Thr	Gly
			100					105					110		
Gln	Ser	His	Пe	Cys	Thr	Ser	Ala	Ala	Ser	Tyr	Pro	Gly	Val	Phe	Glu
		115					120					125			
Trp	Asp	Ser	Thr	Ala	Ser	Thr	Val	Lys	Lys	Ser	Ser	Ser	Leu	Arg	Asp
	130					135					140				
Phe	Thr	Val	Thr	Val	Ile	Asp	Gln	Asn	Thr	Ala	Val	Ser	Ser	Met	Ser
145					150					155					160
Met	Thr	Ala	Gln	Tyr	Tyr	Lys	Thr	Ser	Asp	Thr	Asn	Thr	Met	Va]	Pro
		٠		165					170					175	
Leu	Tyr	Pro	Ser	Leu	Ser	Ala	Ser	Leu	Val	Gln	Gly	Thr	Leu	Thr	Gln
			180					185					190		
He	Pro	Asn	Gln	Gln	Gly	His	Asn	Leu	Ser	Leu	Pro	Cys	Gln	He	Gly
		195					200					205			
Ser	G1n	Val	Tyr	Tyr	Tyr	Asn	Gln	G1 y	Thr	Leu		Pro	Gln	Leu	Ser
	210					215					220				
	Leu	Gln	Ser	Tyr		Ser	Val	Ser	Tyr		Gly	Tyr	Arg	Ala	
225			_		230					235					240
Ala	His	GIn	Pro		Met	Val	Met	Val		Lys	Glu	Val	GIn		Thr
	1, 1		Б	245	17. 1	C	TI	C	250		T	т	C	255	C
Asn	Val	Leu		Pro	Val	Ser	Ihr		Ыÿ	Met	lyr	lyr		val	Ser
C	C1	D	260	ть	C1	Tl	C	265 Val	C.L.	Vie. 1	Mai	C L.	270	C	1
ser	6111	275	116	Inr	Gju	Thr	280	vai	GIN	val	мет	285	1111	261.	Leu
C1 <sub>11</sub>	Mot		The	Sar	Lou	Gly		Cln	Sor	Dro	Sor		The	Pho	Cvc
01 y	290	nsp	1 111	361	Leu	295			361		300	OIII	1113	1116	Cys
len		Gln	Thr	Pro	Glu	Phe						Ser	Arø	Asn	Thr
305	110	0111	, , , , ,	110	310	THE	001	D, S	OC.	315	Ç.	001	,,, 8	71011	320
	Thr	Leu	Glu	Ser		Pro	Ser	Pro	Glu		GIv	Asp	He	Ser	
				325					330					335	
Thr	Pro	Val	Gln	Ser	Pro	Thr	Asn	Leu		Thr	Leu	Ser	Pro	Ala	Pro
			340					345					350		
Ser	Gln	Glu	Lys	Lys											
		355													

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10

Pro Val Gln Asn Lys Met Asn Pro Ala Tyr lle Phe Glu Val Glu Gly

25

15

30

1

5

Lys	Pro	His	Ser	Val	Glu	Glu	Tyr	Tyr	Leu	Asn	Asp	Leu	Glu	His	He
		35					40					45			
His	His	Ser	Lys	Leu	Ser	Pro	His	Leu	Leu	Glu	Glu	Pro	Val	He	Thr
	50					55					60				
Lys	Asp	He	Tyr	Glu	Val	Ala	Val	Ser	Leu	11e	Gln	Met	Phe	Asp	Asp
65					70					75					80
Leu	Asp	Met	Lys	Glu	Ser	Gly	Asn	Lys	Ala	Trp	Ser	Gly	Ala	Gln	Phe
				85					90					95	
Val	Leu	Glu	Arg	Ser	Ser	Val	Leu	Val	Phe	Leu	Pro	Gly	Leu	G1 y	Glu
			100					105					110		
He	Asn	Tyr	Met	His	Glu	Leu	Leu	Thr	Ser	Leu	Val	His	Lys	Arg	Leu
		115					120					125			
Gln	Val	Tyr	Pro	Leu	His	Ser	Ser	Val	Ala	Leu	Glu	Glu	Gln	Asn	Asn
	130					135					140				
Val	Phe	Leu	Ser	Pro	Val	Pro	G1 y	Tyr	Arg	Lys	He	He	Leu	Ser	Thr
145					150					155					160
Asn	He	Ala	Glu	Ser	Ser	Val	Thr	Val	Pro	Asp	Val	Lys	Tyr	Val	He
				165					170					175	
Asp	Phe	Cys	Leu	Thr	Arg	Thr	Leu	Val	Cys	Asp	Glu	Asp	Thr	Asn	Tyr
			180					185					190		
G1n	Ser	Leu	Arg	Leu	Ser	Trp	Ala	Ser	Lys	Thr	Ser	Cys	Asn	Gln	Arg
		195					200					205			
Lys		Arg	Ala	Gly	Arg		Ser	Arg	Gly	Tyr		Tyr	Arg	Leu	Va]
	210					215					220				
	Lys	Asp	Phe	Trp	Asp	Asn	Ser	He	Pro		His	Val	Val	Pro	
225					230					235					240
Met	Leu	Arg	Cys		Leu	Gly	Ser	Thr		Leu	Lys	Val	Lys		Leu
				245					250					255	_
Asp	Met	Gly		Pro	Arg	Ala	Leu		Ala	Thr	Ala	Leu		Pro	Pro
	_	_	260					265					270		
Gly	Leu		Asp	He	Glu	Arg		He	Leu	Leu	Leu		Glu	Val	Gly
	•	275		~			280					285			
Ala		Ala	Val	Ser	Gly		Arg	G1u	Asp	Glu		Pro	His	Asp	GIy
C.1	290	T.	Di		6.7	295	., -			<b>61</b>	300		.,		
	Leu	Ihr	Phe	Leu	Gly	Arg	Val	Leu	Ala		Leu	Pro	Val	Asn	
305					310					315					320

Gln	Leu	Gly	Lys	Leu	He	Val	Leu	Gly	His	Val	Phe	Gly	Cys	Leu	Asp
				325					330					335	
Glu	Cys	Leu	He	He	Ala	Ala	Ala	Leu	Ser	Leu	Lys	Asn	Phe	Phe	Ala
			340					345					350		
Met	Pro	Phe	Arg	Gln	His	Leu	Asp	Gly	Tyr	Arg	Asn	Lys	Val	Asn	Phe
		355					360					365			
Ser	Gly	Ser	Ser	Lys	Ser	Asp	Cys	Пe	Ala	Leu	Val	Glu	Ala	Phe	Lys
	370					375					380				
Thr	Trp	Lys	Ala	Cys	Arg	Gln	Thr	Gly	Glu	Leu	Arg	Tyr	Pro	Lys	Asp
385					390					395					400
Glu	Leu	Asn	Trp	Gly	Arg	Leu	Asn	Tyr	lle	Gln	Ile	Lys	Arg	He	Arg
				405					410					415	
Glu	Val	Ala	Glu	Leu	Tyr	Glu	Glu	Leu	Lys	Thr	Arg	He	Ser	Gln	Phe
			420					425					430		
Asn	Met	His	Val	Asp	Ser	Arg	Arg	Pro	Val	Met	Asp	Gln	Glu	Tyr	He
		435					440					445			
Tyr	Lys	Gln	Arg	Phe	Ile	Leu	Gln	Val	Val	Leu	Ala	Gly	Ala	Phe	Tyr
	450					455					460				
Pro	Asn	Tyr	Phe	Thr	Phe	Gly	Gln	Pro	Asp	Glu	Glu	Met	Ala	Val	Arg
465					470					475					480
Glu	Leu	Ala	Gly	Lys	Asp	Pro	Lys	Thr	Thr	Val	Val	Leu	Lys	His	lle
				485					490					495	
Pro	Pro	Tyr	Gly	Phe	Leu	Tyr	Tyr	Lys	Gln	Leu	Gln	Ser	Leu	Phe	Arg
			500					505					510		
Gln	Cys	Gly	Gln	Val	Lys	Ser	He	Val	Phe	Asp	Gly	Ala	Lys	Ala	Phe
		515					520					525			
Val	Glu	Phe	Ser	Arg	Asn	Pro	Thr	Glu	Arg	Phe	Lys	Thr	Leu	Pro	A]a
	530					535					540				
Val	Tyr	Met	Ala	He	Lys	Met	Ser	Gln	Leu	Lys	Val	Ser	Leu	Glu	Leu
545					550					555					560
Ser	Val	His	Ser	Ala	Glu	Glu	He	Glu	Gly	Lys	Val	Gln	Gly	Met	Asn
				565					570					575	
Val	Ser	Lys	Leu	Arg	Asn	Thr	Arg	Val	Asn	Val	Asp	Phe	Gln	Lys	Gln
			580					585					590		
Thr	Val	Asp	Pro	Met	Gln	Val	Ser	Phe	Asn	Thr	Ser	Asp	Arg	Ser	Gln
		595					600					605			

Thr	Val	Thr	Asp	Leu	Leu	Leu	Thr	lle	Asp	Val	Thr	Glu	Val	Val	Glu
	610					615					620				
Val	Gly	His	Phe	Trp	Gly	Tyr	Arg	He	Asp	Glu	Asn	Asn	Ser	Glu	He
625					630					635					640
Leu	Lys	Lys	Leu	Thr	Ala	Glu	He	Asn	Gln	Leu	Thr	Leu	Val	Pro	Leu
				645					650					655	
Pro	Thr	His	Pro	His	Pro	Asp	Leu	Val	Cys	Leu	Ala	Pro	Phe	Лlа	Asp
			660					665					670		
Phe	Asp	Lys	Gln	Arg	Tyr	Phe	Arg	Ala	G1n	Val	Leu	Tyr	Val	Ser	Gly
		675					680					685			
Asn	Ser	Ala	Glu	Val	Phe	Phe	Val	Asp	Tyr	Gly	Asn	Lys	Ser	His	Val
	690					695					700				
Asp	Leu	His	Leu	Leu	Met	Glu	He	Pro	Cys	Gln	Phe	Leu	Glu	Leu	Pro
705					710					715					720
Phe	Gln	Ala	Leu	Glu	Phe	Lys	Пе	Cys	Lys	Met	Arg	Pro	Ser	Ala	Lys
				725					730					735	
Ser	Leu	Val	Cys	G1y	Lys	His	Trp	Ser	Asp	Gly	Ala	Ser	Gln	Trp	Phe
			740					745					750		
Ala	Ser	Leu	Val	Ser	Gly	Cys	Thr	Leu	Leu	Val	Lys	Val	Phe	Ser	Val
		755					760					765			
Val	His	Ser	Val	Leu	His	Val	Asp	Val	Tyr	Gln	Tyr	Ser	Gly	Val	Gln
	770					775					780				
Asp	Ala	He	Asn	He	Arg	Asp	Val	Leu	He	Gln	Gln	Gly	Tyr	Ala	Glu
785					790					795					800
Leu	Thr	Glu	Glu	Ser	Tyr	Glu	Ser	Lys	Val	Asn	He	Leu	Arg	Ala	Ala
				805					810					815	
He	Asn	Lys	Leu	Val	Cys	Asp	Gly	Pro	Asn	Gly	Cys	Lys	Cys	Leu	G1 y
			820					825					830		
Pro	Glu	Arg	Val	Ala	Gln	Leu	Gln	Asp	He	Ala	Arg	G1n	Lys	Leu	Leu
		835					840					845			
Gly	Leu	Phe	Cys	Gln	Ser	Lys	Pro	Arg	Glu	Lys	He	Val	Pro	Lys	Trp
	850					855					860				
	Glu	Lys	Pro	Tyr	Glu	Trp	Asn	Gln	Val		Pro	Lys	Leu	Val	
865					870					875					880
Glu	Gln	Ala	Asp	Arg	Glu	Ser	Ser	Arg		Lys	Asn	Thr	Phe		Tyr
				885					890					895	

Gln Leu His Lys Leu Val Val Leu Gly Thr 900 905

<210> 3856

<211> 738

<212> PRT

<213> Homo sapiens

<400> 3856

Met Leu Lys Trp 11e Ser Trp Arg Gln Ser Lys Ala Asn Lys Ala Gln
1 5 10 15

Leu Ser Gly Gly Cys Glu Leu Thr Val Val Leu Gln Asp Phe Ser Ala 20 25 30

Gly His Ser Ser Glu Leu Thr 11e Gln Val Gly Gln Thr Val Glu Leu 35 40 45

Leu Glu Arg Pro Ser Glu Arg Pro Gly Trp Cys Leu Val Arg Thr Thr
50 55 60

Glu Arg Ser Pro Pro Leu Glu Gly Leu Val Pro Ser Ser Ala Leu Cys
65 70 75 80

11e Ser His Ser Arg Ser Ser Val Glu Met Asp Cys Phe Phe Pro Leu
85
90
95

Val Lys Asp Ala Tyr Ser His Ser Ser Ser Glu Asn Gly Gly Lys Ser 100 105 110

Glu Ser Val Ala Asn Leu Gln Ala Gln Pro Ser Leu Asn Ser Ile His 115 120 125

Ser Ser Pro Gly Pro Lys Arg Ser Thr Asn Thr Leu Lys Lys Trp Leu 130 135 140

Thr Ser Pro Val Arg Arg Leu Asn Ser Gly Lys Ala Asp Gly Asn Ile 145 150 155 160

Lys Lys Gln Lys Lys Val Arg Asp Gly Arg Lys Ser Phe Asp Leu Gly
165 170 175

Ser Pro Lys Pro Gly Asp Glu Thr Thr Pro Gln Gly Asp Ser Ala Asp 180 185 190

Glu Lys Ser Lys Lys Gly Trp Gly Glu Asp Glu Pro Asp Glu Glu Ser 195 200 205

His	Thr	Pro	Leu	Pro	Pro	Pro	Met	Lys	He	Phe	Asp	Asn	Asp	Pro	Thr
	210					215					220				
Gln	Asp	Glu	Met	Ser	Leu	Glu	Gly	Ser	Ser	Tyr	Arg	Gly	Ser	Leu	Lys
225					230					235					240
Asp	Pro	Ala	Gly	Cys	Leu	Asn	Glu	G] y	Met	Ala	Pro	Pro	Thr	Pro	Pro
				245					250					255	
Lys	Asn	Pro	Glu	Glu	Glu	Gln	Lys	Ala	Lys	Ala	Leu	Arg	Gly	Arg	Met
			260					265					270		
Phe	Val	Leu	Asn	Glu	Leu	Val	Gln	Thr	Glu	Lys	Asp	Tyr	Val	Lys	Asp
		275					280					285			
Leu	Gly	lle	Val	Val	Glu	Gly	Phe	Met	Lys	Arg	He	Glu	Glu	Lys	Gly
	290					295					300	•			
Val	Pro	Glu	Asp	Met	Arg	Gly	Lys	Asp	Lys	11e	Val	Phe	Gly	Asn	He
305					310					315					320
His	Gln	Пе	Tyr	Asp	Trp	His	Lys	Asp	Phe	Phe	Leu	Λla	Glu	Leu	Glu
				325					330					335	
Lys	Cys	He	Gln	Glu	Gln	Asp	Arg	Leu	Ala	Gln	Leu	Phe	lle	Lys	His
			340					345					350		
Glu	Arg	Lys	Leu	His	lle	Tyr	Val	Trp	Tyr	Cys	Gln	Asn	Lys	Pro	Arg
		355					360					365			
Ser	Glu	Tyr	lle	Val	Ala	Glu	Tyr	Asp	Ala	Tyr	Phe	Glu	Glu	Val	Lys
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Gln	Glu	Ile	Asn	Gln	Arg	Leu	Thr	Leu	Ser	Asp	Phe	Leu	Ile	Lys	Pro
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lle	Gln	Arg	lle	Thr	Lys	Tyr	Gln	Leu	Leu	Leu	Lys	Asp	Phe	Leu	Arg
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Tyr	Ser	Glu	Lys	Ala	Gly	Leu	Glu	Cys	Ser	Asp	He	Glu	Lys	Ala	Val
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Glu	Leu	Met	Cys	Leu	Val	Pro	Lys	Arg	Cys	Asn	Asp	Met	Met	Asn	Leu
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Gly	Arg	Leu	Gln	Gly	Phe	Glu	Gly	Thr	Leu	Thr	Ala	Gln	Gly	Lys	Leu
	450					455					460				
Leu	Gln	Gln	Asp	Thr	Phe	Tyr	Val	He	Glu	Leu	Asp	Ala	Gly	Met	Gln
465					470					475					480
Ser	Arg	Thr	Lys	Glu	Arg	Arg	Val	Phe	Leu	Phe	Glu	Gln	He	Val	He

				485					490					495	
Phe	Ser	Glu	Leu	Leu	Arg	Lys	Gly	Ser	Leu	Thr	Pro	Gly	Tyr	Met	Phe
			500					505					510		
Lys	Arg	Ser	He	Lys	Met	Asn	Tyr	Leu	Val	Leu	Glu	Glu	Asn	Val	Asp
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Asn	Asp	Pro	Cys	Lys	Phe	Ala	Leu	Met	Asn	Arg	Glu	Thr	Ser	Glu	Arg
	530					535					540				
Val	Val	Leu	Gln	Ala	Ala	Asn	Ala	Asp	He	Gln	Gln	Ala	Trp	Val	Gln
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Asp	Ile	Asn	Gln	Val	Leu	Glu	Thr	Gln	Arg	Asp	Phe	Leu	Asn	Ala	Leu
				565					570					575	
Gln	Ser	Pro	lle	Glu	Tyr	Gln	Arg	Lys	Glu	Arg	Ser	Thr	Ala	Val	Met
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Arg	Ser	G1n	Pro	Ala	Arg	Leu	Pro	Gln	Ala	Ser	Pro	Arg	Pro	Tyr	Ser
		595					600					605			
Ser	Val	Pro	Лlа	Gly	Ser	Glu	Lys	Pro	Pro	Lys	Gly	Ser	Ser	Tyr	Asn
	610					615					620				
Pro	Pro	Leu	Pro	Pro	Leu	Lys	Ile	Ser	Thr	Ser	Asn	Gly	Ser	Pro	Gly
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Phe	Glu	Tyr	His	Gln	Pro	G1 y	Asp	Lys	Phe	Glu	Ala	Ser	Lys	Asn	Asp
				645					650					655	
Leu	Gly	Gly	Cys	Asn	Gly	Thr	Ser	Ser	Met	Ala	Val	He	Lys	Asp	Tyr
			660					665					670		
Tyr	Ala	Leu	Lys	Glu	Asn	Glu	He	Cys	Val	Ser	Gln	Gly	Glu	Val	Val
		675					680					685			
Gln	Val	Leu	Ala	Val	Asn	Gln	Gln	Asn	Met	Cys	Leu	Val	Tyr	Gln	Pro
	690					695					700				
Ala	Ser	Asp	His	Ser	Pro	Ala	Ala	Glu	Gly	Trp	Val	Pro	Gly	Ser	He
705					710					715					720
Leu	Ala	Pro	Leu	Thr	Lys	Ala	Thr	Ala	Ala	Glu	Ser	Ser	Asp	Gly	Ser
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11e	Lys														

<211> 114 <212> PRT <213> Homo sapiens <400> 3857 Met Lys Pro Ser Val Thr Val Leu Phe Pro Thr Phe Gln Leu Met Phe 10 His Val Asp Asn Gly Ala Gly Arg Phe Thr Ala Val Tyr Asp Ala Gly 20 25 30 Val Pro Gly His Leu Cys Asp Gly Gln Trp His Lys Val Thr Ala Asn 40 45 Lys Ile Lys His Arg 11e Glu Leu Thr Val Asp Gly Asn Gln Val Glu 55 60 Ala Gln Ser Pro Asn Pro Ala Ser Thr Ser Ala Asp Thr Asn Asp Pro 65 70 75 80 Val Phe Val Gly Gly Phe Pro Gly Glu Cys Trp Leu Pro Gln Gln Gln 90 Phe Leu Cys Ser Leu Met Leu Leu Val Leu Lys Thr Phe Ile Phe Thr 100 105 110 Cys Val <210> 3858 <211> 143 <212> PRT <213> Homo sapiens <400> 3858

 Met
 Ser
 Ala
 Leu
 Val
 Cys
 Leu
 Leu
 Pro
 Leu
 Cys
 Leu
 Gln
 Pro
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 I
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 Val
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 Asp
 His
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 Ser
 Arg
 Glu
 Thr
 Val
 Pro
 Lys
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 Pro

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 25
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50 55 60 His Ala Cys Leu Pro Val Ser Pro Ala Leu Val His Ala Ala His Ile 70 75 Arg Thr Leu Val Thr Pro Pro Phe Ser Leu Gln Pro His Leu Pro Ser 90 95 85 Gly 11e Phe 11e Ser Val Pro Pro Ala His Ala Asn Leu His Leu Leu 105 Leu Tyr Pro Ala Pro Leu Pro Val Ser Val Pro Gly Val Pro Leu Cys 115 120 125 His Ala Ala Val Ala Ser Glu Leu Pro Phe Cys Leu Asp Pro Leu 130 135 140

<210> 3859

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3859

Met Gln Asp Pro Glu Gly Ser Lys Glu Ser Thr Val Arg Arg Lys Ser 1 5 10 15

Thr Val Arg Gln Leu Ser Phe Arg Asp Val Val Leu Arg Cys Arg Pro 20 25 30

His Pro Gln Val His Pro Gly Ser Gln Pro Ser Glu Gly Thr Met Glu 35 40 45

11e Gln Leu Leu Thr Leu Gly Ser Arg Arg 11e Pro Asp His Ser Cys
50 55 60

Val His Pro Gly Arg Glu Pro Ser Glu Gly Thr Val Glu Ile Gln Leu 65 70 75 80

Leu Thr Leu Ala Ser Ile Arg Ile Pro Asp Ser Ser Gly Ser Gln Thr
85 90 95

Ser Asp Asn Ser Lys Ile Ala Thr Leu Tyr Ser Ser Leu Phe His Val 100 105 110

Cys Gln Phe Lys Cys Thr Ser Gln Ser Leu Val Leu Gln Met Gln Lys 115 120 125

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             20
                                 25
Glu Ser Gln Trp Lvs lle Met Gln Lys Lvs lle Glu Glu Leu Cys Arg
                             40
                                                  45
Glu Val Lys Leu Trp Arg Lys Ile Asn Ile Asn Glu Ser Ala Lys Ile
     50
                         55
                                              60
lle Asp Leu Tyr His Glu Lys Thr lle Pro Glu Lys Val lle Glu Ser
                     70
                                          75
Ser Pro Asn Tyr Pro Asp Leu Gly Gln Ser Glu Phe Ile Arg Thr Asn
                 85
                                      90
His Lys Asp Gly Leu Arg Lys Glu Asn Lys Arg Glu Gln Ser Leu Val
            100
                                105
                                                     110
Ser Gly Gly Asn Gln Met Cys Lys Glu Gln Lys Ala Thr Lys Lys Ser
                            120
                                                 125
Lvs Val Gly Phe Leu Asp Pro Leu Ala Thr Asp Asn Gln Lys Glu Cys
    130
                        135
Glu Ala Trp Pro Asp Leu Arg Thr Ser Glu Glu Asp Ser Lys Ser Cys
                    150
                                        155
Ser Gly Ala Leu Ser Thr Ala Leu Glu Glu Leu Ala Lys Val Ser Glu
                165
                                     170
                                                         175
Glu Leu Cys Ser Phe Gln Glu Glu 11e Arg Lys Arg Ser Asn His Arg
                                185
Arg Met Lys Ser Asp Ser Phe Leu Gln Glu Met Pro Asn Val Thr Asn
                            200
                                                 205
He Pro His Gly Asp Pro Met He Asn Asn Asp Gln Cys He Leu Pro
    210
                                             220
                        215
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lle Ser Leu Glu Lys Glu Lys Gln Lys Asn Arg Lys Asn Leu Ser Cys

225					230					235					240
Thr	Asn	Val	Leu	Gln	Ser	Asn	Ser	Thr	Lys	Lys	Cys	Gly	11e	Asp	Thr
				245					250					255	
He	Asp	Leu	Lys	Arg	Asn	Glu	Thr	Pro	Pro	Val	Pro	Pro	Pro	Arg	Ser
			260					265					270		
Thr	Ser	Arg	Asn	Phe	Pro	Ser	Ser	Asp	Ser	Glu	Gln	Ala	Tyr	Glu	Arg
		275					280					285			
Trp	Lys	Glu	Arg	Leu	Asp	His	Asn	Ser	Trp	Va]	Pro	His	Glu	Gly	Arg
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Ser	Lys	Arg	Asn	Tyr	Asn	Pro	His	Phe	Pro	Leu	Arg	Gln	Gln	Glu	Met
305					310					315					320
Ser	Met	Leu	Tyr	Pro	Asn	Glu	G1 y	Lys	Thr	Ser	Lys	Asp	Gly	Пе	He
				325					330					335	
Phe	Ser	Ser	Leu	Va]	Pro	Glu	Val	Lys	Пe	Asp	Ser	Lys	Pro	Pro	Ser
			340					345					350		
Asn	Glu	Asp	Val	Gly	Leu	Ser	Met	Trp	Ser	Cys	Asp	He	Gly	Пе	Gly
		355					360					365			
Ala	Lys	Arg	Ser	Pro	Ser	Thr	Ser	Trp	Phe	Gln	Lys	Thr	Cys	Ser	Thr
	370					375					380				
Pro	Ser	Asn	Pro	Lys	Tyr	Glu	Met	Val	He	Pro	Asp	His	Pro	Ala	Lys
385					390					395					400
Ser	His	Pro	Asp	Leu	His	Va]	Ser	Asn	Asp	Cys	Ser	Ser	Ser	Val	Ala
				405					410					415	
Glu	Ser	Ser	Ser	Pro	Leu	Arg	Asn	Phe	Ser	Cys	Gly	Phe	Glu	Arg	Thr
			420					425					430		
Thr	Arg	Asn	G]u	Lys	Leu	Ala	Ala	Lys	Thr	Asp	Glu	Phe	Asn	Arg	Thr
		435					440					445			
Val	Phe	Arg	Thr	Asp	Arg	Asn	Cys	Gln	Ala	He	Gln	Gln	Asn	His	Ser
	450					455					460				
Cys	Ser	Lys	Ser	Ser	Glu	Asp	Leu	Lys	Pro	Cys	Asp	Thr	Ser	Ser	Thr
465					470					475					480
His	Thr	Gly	Ser	Пе	Ser	Gln	Ser	Asn	Asp	Val	Ser	G1y	He	Trp	Lys
				485					490		•			495	
Thr	Asn	Ala	His	Met	Pro	Val	Pro	Met	Glu	Asn	Val	Pro	Asp	Asn	Pro
			500					505					510		
Thr	Lvs	Lvs	Ser	Thr	Thr	Gly	Leu	Va]	Arg	Gln	Met	Gln	Glv	His	Leu

Ser Pro Arg Ser Tyr Arg Asn Met Leu His Glu His Asp Trp Arg Pro Ser Asn Leu Ser Gly Arg Pro Arg Ser Ala Asp Pro Arg Ser Asn Tyr Gly Val Val Glu Lys Leu Leu Lys Thr Tyr Glu Thr Ala Thr Glu Ser Ala Leu Gln Asn Ser Lys Cys Phe Gln Asp Asn Trp Thr Lys Cys Asn Ser Asp Val Ser Gly Gly Ala Thr Leu Ser Gln His Leu Glu Met Leu Gln Met Glu Gln Gln Phe Gln Gln Lys Thr Ala Val Trp Gly Gly Gln Glu Val Lys Gln Gly Ile Asp Pro Lys Lys Ile Thr Glu Glu Ser Met Ser Val Asn Ala Ser His Gly Lys Gly Phe Ser Arg Pro Ala Arg Pro Ala Asn Arg Arg Leu Pro Ser Arg Trp Ala Ser Arg Ser Pro Ser Ala Pro Pro Ala Leu Arg Arg Thr Thr His Asn Tyr Thr 11e Ser Leu Arg Ser Glu Ala Leu Met Val 

<210> 3861

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 3861

Met Asp Thr Ser Ser Ser Ala His Pro His Leu Pro Ser Leu Lys Ala

1 5 10 15

Glu Glu Ser Gln Met Lys Thr Gln Val 11e Thr His Arg Glu Asn Ser

20 25 30

Arg Leu Ile Met Gln Lys Gln Lys Lys Glu Leu Glu Ala Ser Asn Ala

		35					40					45			
Lys	Gln	Ser	Ile	Gln	Leu	Gln	Lys	Leu	Phe	G1n	Arg	Asn	Val	Leu	Asp
	50					55					60				
Ser	Phe	Tyr	Ser	Tyr	Val	Pro	Leu	Ser	Pro	Lys	Arg	Lys	Asp	Gln	Lys
65					70					75					80
Gly	Arg	Leu	Thr	He	Arg	Asp	Leu	Lys	Arg	Glu	Leu	Ser	Thr	Lys	Tyr
				85					90					95	
Leu	Thr	Met	Lys	He	Gln	Asn	His	Pro	He	Pro	Gln	Met	Leu	Asn	Ile
			100					105					110		
Thr	Gly	Arg	Gly	Thr	Pro	Ser		Arg	Lys	Lys	Leu		Tyr	Asp	Val
		115					120					125			
Lys		Lys	Asn	He	Ala		Trp	Ser	Lys	Asp		Ser	Gly	He	Phe
~ .	130					135	* 1				140		/D1		15
	Arg	Ser	Leu	Ser		Ser	He	Met	Arg		Pro	His	lhr	Asp	
145	TI.		,	C1	150	C1			7.1	155	ī	D	1	DL.	160
Lys	Inr	Asn	Leu		Arg	GIU	Lys	Arg		Cys	Leu	Pro	Lys		GIN
C1	Lve	Ser	Dro	165 Acn	Thr	Sor	Glu	Mot	170	Lvc	Ara	Aen	Thr	175 Lov	Thr
Olu	Lys	261	180	лы	1111	361	Olu	185	261	Lys	Мg	пэр	190	Leu	1111
He	Val	Lys		Glu	Gln	Asn	Phe		Asn	Thr	Val	Pro		Asp	Pro
110	, ,	195	01)	014	0111		200				,	205	0111	p	
Gln	Pro	Phe	Ala	Va1	Asp	Lys		Gln	Met	Gln	Lvs		Pro	Asn	Val
	210					215					220				
Lys	Ser	Glu	Ala	Asn	Leu	Arg	Ser	Glu	Met	Asn	Lys	Lys	Tyr	Leu	Lys
225					230					235					240
Ala	Gln	Thr	Lys	Glu	Arg	11e	Va]	Pro	Glu	His	Asp	Val	Ser	Arg	He
				245					250					255	
Пе	Lys	Lys	Pro	Asp	Leu	Arg	He	He	Glu	Gln	Glu	Glu	Lys	He	Leu
			260					265					270		
Lys	Arg	He	Leu	Thr	Pro	Thr	Glu	Cys	Pro	Ser	Met	Leu	Glu	Asp	Pro
		275					280					285			
Lys	Leu	Pro	Lys	GIn	Arg	Asp	Gln	Ser	G] u	Pro	Val	Trp	Asp	Met	Thr
	290					295					300				
Thr	G1n	Lys	Val	G]n	Gln	Gln	Lys	Ala	Phe		Gly	Thr	Val	Pro	
305					310					315					320
Pro	Pro	Gln	Val	lvs	Ser	Ser	Glu	Val	lvs	He	Val	Ala	Asp	Ser	Thr

				325					330					335	
Asn	Λla	Glu	His	Leu	Leu	Pro	lle	Cys	Glu	Ala	Thr	Lys	Ala	lle	Ser
			340					345					350		
Glu	Ser	Gln	Va]	Lys	Asn	Met	lle	Gln	Asp	Lys	Val	Ser	Ser	Asp	Lys
		355					360					365			
Leu	Asp	Asn	Ile	Gln	Ala	Tyr	Lys	Pro	Asp	Asp	Leu	Lys	Ser	Pro	Pro
	370					375					380				
Phe	Pro	Glu	Gly	Pro	Asp	Thr	lle	Ser	Thr	Ala	lle	Tyr	Pro	Lys	Thr
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Gln	His	Lys	Ser	Leu	Leu	Glu	Gln	Phe	Thr	Pro	Lys	Glu	Lys	Asn	Lys
				405					410					415	
Leu	Thr	Ser	His	Leu	Glu	Ser	Lys	Ala	Leu	Glu	He	Gln	Leu	Asn	Leu
			420					425					430		
lle	Pro	Glu	Met	Ala	Arg	Lys	Ser	Leu	Gln	Met	Phe	Asn	Phe	Tyr	Pro
		435					440					445			
Lys	Gly	Thr	He	Ser	Lys	Asp	Asn	Ser	Trp	Arg	Phe	Tyr	Ser	Arg	His
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Lys	Thr	Met	Asn	Phe	Met	Ser	Leu	Glu	G1 y	Thr	Asp	Thr	He	Glu	Pro
465					470					475					480
Asn	Ser	Lys	His	Lys	His	Gln	Lys	Asp	Ser	Pro	Leu	Ala	Ser	Asn	Met
				485					490					495	
Lys	Thr	Leu	He	Val	Asp	Val	Ser	Ser	Asp	Ser	Glu	Glu	Thr	He	Thr
			500					505					510		
Lys	Leu	Gln	Ser	He	Asn	Lys	Leu	Glu	Asn	Gly	Thr	Ser	Ala	Va]	Thr
		515					520					525			
Ser		Ser	Glu	Met	Leu	Leu	Pro	His	Thr	Leu	Gln	Asn	His	Ser	Val
	530					535					540				
	Glu	Lys	Gly	Lys		Leu	Met	His	Phe	Ser	Val	Lys	Thr	Leu	Glu
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He	Gln	Met	Lys		Phe	Pro	Arg	He		Arg	G]u	Ser	Tyr	Ala	Met
				565					570					575	
Thr	Ser	Ala		Glu	Arg	Lys	Lys		Leu	Ser	Asn	Cys		His	Pro
			580	_				585					590		
Gly	Phe		Gly	Pro	Lys	Arg		Asn	Arg	He	Leu		Leu	Ser	Glu
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Glu	Lvs	Ser	Leu	His	GIn	He	Asp	Leu	Asp	Leu	Gln	Tyr	Lvs	Tyr	Len

	610					615					620				
Arg	Phe	Pro	Leu	Gly	Leu	Pro	Val	Gly	Ser	Thr	Phe	Pro	Lys	Pro	Asn
625					630					635					640
Val	Leu	Pro	Lys	His	Ser	Lys	Leu	Asn	Thr	11e	Λla	Val	Cys	Lys	Asn
				645					650					655	
Val	Asn	Ala	Gly	Gly	Gln	Ser	Gly	Ser	Leu	Ser	He	Asp	Thr	Glu	Leu
			660					665					670		
Leu	Glu	Gln	His	lle	Ser	Phe	Lys	Lys	Gln	Ser	Pro	His	Glu	Asn	Ser
		675					680					685			
Ser	Leu	Ile	Arg	Lys	Phe	Pro	Gln	Pro	Thr	Leu	Val	Cys	Ala	Ser	Asp
	690					695					700				
Arg	Asp	Leu	His	Ser	Pro	Arg	Lys	Lys	Asp	Thr	Gln	Val	Leu	Ser	Glu
705					710					715					720
Ser	Glu	Phe	His	Val	Thr	Pro	Glu	Lys	Asn	Lys	G1n	Tyr	His	Val	Trp
				725					730					735	
Phe	Gln	Glu	Arg	Asn	Thr	Cys	Glu	Ser	Val	Asp	Leu	Arg	Thr	Gln	Arg
			740					745					750		
Asn	Ala		Gly	Ser	Ala	Val		Cys	Glu	Thr	Gln	He	Ser	Glu	Asp
		755					760		_			765			
Phe		Asp	He	Gln	Thr		Пе	Glu	Ser	Pro		Asp	Leu	Asp	G1u
_	770	0		0.1	., .	775	<b>C</b> 1	0	0.1	0.1	780	1	EN.		6.1
	Ser	Cys	Leu	Glu		Ser	Glu	Ser	Glu		Cys	Val	Phe	Leu	
785		C	т	1	790	C1.	C1.	C	61	795	7.1	<b>1</b>	DI	C1	800
мта	ASI	ser	lyr		Ser	GIN	GIU	ser		ASN	11e	Leu	rne		Leu
C1	Than	C1	Tla	805 Drag	Lau	C1	Λ	Val	810	Lua	T1.	The	TL	815	Lan
GIII	1111	GTY	820	110	Leu	Gru	ASII	825	1 y 1	Lys	116	Thr	830	nsp	Leu
Lve	Sor	Pho		Sor	C1u	Acn	Sor		Sor	Hic	Cvc	Thr		C.Lu	Cvc
Lys	561	835	1 9 1	261	Olu	nsp	840	Ory	261	1113	Cys	845	Mg	Olu	Cys
Arø	lvs		Thr	Leu	He	He		Pro	Pro	Ser	Cvs	Lys	Ser	His	Lvs
, III S	850	014		Dea	1.10	855	1111	110	110	561	860	L, J	001	1115	15) 15
Ser		Lvs	Tvr	Arg	Ser		Ser	Lvs	Met	Lvs		Pro	Asp	Trp	Leu
865		, 0	- , -	6	870			: 5		875				12	880
	His	Ser	Ser	Ser		Thr	Ala	Glu	lle		Ser	Arg	Ser	Ser	
-				885					890			J		895	

Val Ser Phe Ser Glu Glu Lys Ile Ser Trp Thr Thr Asn Ser Arg Thr Ser Tyr Ser Ser Ala Pro Leu Thr Glu Ser Asn Ile Lys Ser His Leu Ala Lys Asn Gln Gly Lys Ser His Arg His Pro Glu Ser Gln Glu Arg Lys Lys Ala Arg Ser Asp Leu Phe Arg Lys Asn Ser Ser His Trp Asp His Asp Tyr Ser Cys Thr His Ser Lys Gly Lys Arg Asp Arg Lys Lys Arg Val Tyr Asp Tyr Glu Ser Glu Arg Leu Asp Cys Phe Gln Ser Lys His Lys Ser Ala Ser Lys Pro His His Asp Asp Ile Asn Phe Tyr Ser Glu Arg Lys Gln Asn Arg Pro Phe Phe Phe Ala Cys Val Pro Ala Asp Ser Leu Glu Val Ile Pro Lys Thr Ile Arg Trp Thr Ile Pro Pro Glu Thr Leu Arg Lys Arg Asn Phe Arg Ile Pro Leu Val Ala Lys Ile Ser Ser Ser Trp Asn Ile Trp Ser Ser Ser Lys Lys Leu Leu Gly Ser Leu Ser Gly Ser Leu Thr Thr Val Phe His Ser 

<210> 3862

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3862

Met Ser Ser Thr Lys Asn Thr Ser Gln Ser Ile Arg Glu Lys Phe Arg

1 5 10 15

Trp Ala Pro Phe Tyr Asp Cys Phe Pro Pro Gln Thr Cys Phe Trp Met

20 25 30

Ile Gly Cys His Asp Pro Gly Val Leu Gly Phe His Thr Cys Leu Gly 35 40 45 Gln Glu Ser Ser Leu Cys Leu His Val Pro Ser Asp Gly Phe Val Val 55 50 60 His Gln Gly Arg Ala Gly Gly Asn Pro Thr Val Ala Asp Leu Arg Leu 70 75 Leu Glu Lys Leu Val Leu His Pro Thr Cys Pro Ser Ser Leu Ile Pro 90 85 Glu Gly His Pro Val Pro Leu Leu Leu Gly Lys Val Pro Pro Ser Thr 100 105 110 Glu Ser Phe Gly Cys His Gly Cys Gln Gly Ala Lys Gly Thr Gly Phe 120 Cys Trp Val Gln Arg Arg Trp His Gln Gly Tyr Leu Gln Val Ala Gly 130 135 140 Cys Arg Cys Gly Val Val Cys 145 150

<210> 3863

<211> 786

<212> PRT

<213> Homo sapiens

<400> 3863

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85 90 95

Gln	Glu	Val	Asp	Gly	Leu	Ser	Gln	Thr	Asp	Gly	Thr	Leu	Thr	Tyr	Phe
			100					105					110		
Asp	Lys	Val	Asp	Lys	Asn	Arg	G]u	Glu	Leu	Phe	Leu	Arg	Ala	Leu	Cys
		115					120					125			
Leu	Cys	His	Thr	Val	Glu	Пe	Lys	Thr	Asn	Asp	Ala	Val	Asp	Gly	Ala
	130					135					140				
Thr	Glu	Ser	Ala	Glu	Leu	Thr	Tyr	He	Ser	Ser	Ser	Pro	Asp	Glu	He
145					150					155					160
Ala	Leu	Val	Lys	Gly	Ala	Lys	Arg	Tyr	Gly	Phe	Thr	Phe	Leu	Gly	Asn
				165					170					175	
Arg	Asn	Gly	Tyr	Met	Arg	Val	Glu	Asn	Gln	Arg	Lys	Glu	He	Glu	Glu
			180					185					190		
Tyr	Glu	Pro	Leu	His	Thr	Leu	Asn	Phe	Asp	Ala	Val	Arg	Arg	Arg	Met
		195					200					205			
Ser	Val	He	Val	Lys	Thr	Gln	Glu	Gly	Asp	lle	Leu	Leu	Phe	Cys	Lys
	210					215					220				
Gly	Ala	Asp	Ser	Ala	Val	Phe	Pro	Arg	Val	Gln	Asn	His	Glu	He	Glu
225					230					235					240
Leu	Thr	Lys	Val	His	Val	Glu	Arg	Asn	Ala	Met	Asp	Gly	Tyr	Aŗg	Thr
				245					250					255	
Leu	Cys	Val	Ala	Phe	Lys	Glu	He	Ala	Pro	Asp	Asp	Tyr	Glu	Arg	lle
			260					265					270		
Asn	Arg	Gln	Leu	He	Glu	Ala	Lys	Met	Ala	Leu	Gln	Asp	Arg	Glu	Glu
		275					280					285			
Lys		Glu	Lys	Va]	Phe	Asp	Asp	lle	Glu	Thr	Asn	Met	Asn	Leu	lle
	290					295					300				
	Ala	Thr	Ala	Val	Glu	Asp	Lys	Leu	Gln		Gln	Ala	Ala	Glu	
305					310					315					320
He	Glu	Ala	Leu		Ala	Ala	Gly	Leu		Val	Trp	Va]	Leu		Gly
				325					330	_		_		335	
Asp	Lys	Met		Thr	Ala	Lys	Ser		Cys	Tyr	Ala	Cys		Leu	Phe
			340					345					350		
Gln	Thr		Thr	Glu	Leu	Leu		Leu	Thr	Thr	Lys		He	Glu	G] u
		355		0.7		·	360		0.3			365	0.7	m	
Ser		Arg	Lys	Glu	Asp		Leu	His	Glu	Leu		He	Glu	Tyr	Arg
	370					375					380				

Lys	Lys	Leu	Leu	His	Glu	Phe	Pro	Lys	Ser	Thr	Arg	Ser	Phe	Lys	Lys
385					390					395					400
Ala	Trp	Thr	Glu	His	Gln	Glu	Tyr	Gly	Leu	He	He	Asp	Gly	Ser	Thr
				405					410					415	•
Leu	Ser	Leu	He	Leu	Asn	Ser	Ser	Gln	Asp	Ser	Ser	Ser	Asn	Asn	Tyr
			420					425					430		
Lys	Ser	11e	Phe	Leu	Gln	He	Cys	Met	Lys	Cys	Thr	Ala	Val	Leu	Cys
		435					440					445			
Cys	Arg	Met	Ala	Pro	Leu	Gln	Lys	Ala	Gln	lle	Val	Arg	Met	Val	Lys
	450					455					460				
Asn	Leu	Lys	Gly	Ser	Pro	lle	Thr	Leu	Ser	He	Gly	Asp	Gly	Ala	Asn
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Asp	Val	Ser	Met	lle	Leu	Glu	Ser	His	Val	Gly	Пe	Gly	He	Lys	Gly
				485					490					495	
Lys	61u	Gly	Arg	G1n	Ala	Ala	Arg	Asn	Ser	Asp	Tyr	Ser	Val	Pro	Lys
			500					505					510		
Phe	Lys	His	Leu	Lys	Lys	Leu	Leu	Leu	Ala	His	Gly	His	Leu	Tyr	Tyr
		515					520					525			
Val	Arg	Val	Ala	His	Leu	Val	Gln	Tyr	Phe	Phe	Tyr	Lys	Asn	Leu	Cys
	530					535					540				
Phe	lle	Leu	Pro	Gln	Phe	Leu	Tyr	G1n	Phe	Phe	Cys	Gly	Phe	Ser	Gln
545					550					555					560
Gln	Pro	Leu	Tyr	Asp	Ala	A]a	Tyr	Leu	Thr	Met	Tyr	Asn	He	Cys	Phe
				565					570					575	
Thr	Ser	Leu	Pro	He	Leu	Ala	Tyr	Ser	Leu	Leu	Glu	Gln	His	He	Asn
			580					585					590		
He	Asp	Thr	Leu	Thr	Ser	Asp		Arg	Leu	Tyr	Met	Lys	He	Ser	Gly
		595					600					605			
Asn		Met	Leu	G1n	Leu	· -	Pro	Phe	Leu	Tyr	_	Thr	Phe	Leu	Ala
	610					615					620				
	Phe	G]u	Gly	Thr		Phe	Phe	Phe	Gly		Tyr	Phe	Leu	Phe	
625					630					635					640
Thr	Ala	Ser	Leu		Glu	Asn	G1 y	Lys		Tyr	Gly	Asn	Trp		Phe
	<b></b>			645					650				_	655	
G1 y	Thr	He		Phe	Thr	Val	Leu		Phe	Thr	Val	Thr		Lys	Leu
			660					665					670		

Ala Leu Asp Thr Arg Phe Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Ala Phe Tyr Val Phe Phe Ser Phe Phe Trp Gly Gly 11e lle Trp Pro Phe Leu Lys Gln Gln Arg Met Tyr Phe Val Phe Ala Gln Met Leu Ser Ser Val Ser Thr Trp Leu Ala Ile Ile Leu Leu Ile Phe Ile Ser Leu Phe Pro Glu Ile Leu Leu Ile Val Leu Lys Asn Val Arg Arg Arg Ser Ala Arg Val Thr Lys Arg Leu Pro Ser Ser Gly Thr Ser Ala lle Phe Met Leu Ser Gln Thr Ser Ser Asn His Ser Phe Ser Trp Ser Glu 

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<213> Homo sapiens

<400> 3864

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His Ala Thr Pro Phe Thr Arg Pro Pro Arg Arg Gly Glu Gly Leu Pro
Ala Glu Cys Leu Ala Leu His Gln His Leu Leu Ser Ser Pro Thr Thr
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Pro Ala Pro Ala Ser Ser Arg Pro Arg Ser Ser Ser Ser Glu Pro
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His Leu
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Arg Leu Leu Lys Arg Leu Gln Pro Glu Phe Lys Thr Arg Ile Ile
                              40
                                                  45
Pro Thr Asp 11e 11e Ser Asp Leu Ser Glu Cys Leu 11e Asn Gln Glu
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                          55
Cys Glu Glu Ile Leu Gln Ile Cys Ser Thr Lys Gly Met Met Ala Gly
                      70
Ala Glu Lys Leu Val Glu Cys Leu Leu Arg Ser Asp Lys Glu Asn Trp
                                      90
Pro Lys Thr Leu Lys Leu Ala Leu Glu Lys Glu Arg Asn Lys Phe Ser
             100
                                 105
                                                     110
Glu Leu Trp 11e Val Glu Lys Gly 11e Lys Asp Val Glu Thr Glu Asp
                             120
                                                 125
.Leu Glu Asp Lys Met Glu Thr Ser Asp lle Gln lle Phe Tyr Gln Glu
                         135
Asp Pro Glu Cys Gln Asn Leu Ser Glu Asn Ser Cys Pro Pro Ser Glu
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145

150

155

160

Val	Ser	Asp	Thr	Asn	Leu	Tyr	Ser	Pro	Phe	Lys	Pro	Arg	Asn	Tyr	Gln
				165					170					175	
Leu	Glu	Leu	Ala	Leu	Pro	Ala	Met	Lys	Gly	Lys	Asn	Thr	lle	He	Cys
			180					185					190		
Ala	Pro	Thr	Gly	Cys	Gly	Lys	Thr	Phe	Val	Ser	Leu	Leu	He	Cys	Glu
		195					200					205			
His	His	Leu	Lys	Lys	Phe	Pro	Gln	Gly	Gln	Lys	Gly	Lys	Val	Val	Phe
	210					215					220				
Phe	Ala	Asn	Gln	Ile	Pro	Val	Tyr	Glu	Gln	Gln	Lys	Ser	Val	Phe	Ser
225					230					235					240
Lys	Tyr	Phe	Glu	Arg	His	Gly	Tyr	Arg	Val	Thr	Gly	He	Ser	Gly	Ala
				245					250					255	
Thr	Ala	Glu	Asn	Val	Pro	Val	G1u	Gln	He	Val	Glu	Asn	Asn	Asp	Пe
			260					265					270		
He	He	Leu	Thr	Pro	Gln	He	Leu	Val	Asn	Asn	Leu	Lys	Lys	Gly	Thr
		275					280					285			
lle	Pro	Ser	Leu	Ser	lle	Phe	Thr	Leu	Met	lle	Phe	Asp	Glu	Cys	His
	290					295					300				
Asn	Thr	Ser	Lys	Gln	His	Pro	Tyr	Asn	Met	11e	Met	Phe	Asn	Tyr	Leu
305					310					315					320
Asp	Gln	Lys	Leu	Gly	Gly	Ser	Ser	Gly	Pro	Leu	Pro	Gln	Val	He	Gly
				325					330					335	
Leu	Thr	Ala	Ser	Val	Gly	Val	Gly	Asp	Ala	Lys	Asn	Thr	Asp	Glu	Ala
			340					345					350		
Leu	Asp	Tyr	He	Cys	Lys	Leu	Cys	Ala	Ser	Leu	Asp	Ala	Ser	Val	He
		355					360					365			
Ala	Thr	Val	Lys	His	Asn	Leu	Glu	Glu	Leu	Glu	Gln	Val	Val	Tyr	Lys
	370					375					380				
Pro	Gln	Lys	Phe	Phe	Arg	Lys	Val	Glu	Ser	Arg	He	Ser	Asp	Lys	Phe
385					390					395					400
Lys	Tyr	He	11e	Ala	Gln	Leu	Met	Arg	Asp	Thr	Glu	Ser	Leu	Ala	Lys
				405					410					415	
Arg	Пе	Cys	Lys	Asp	Leu	G] u	Asn	Leu	Ser	Gln	He	Gln	Asn	Arg	Glu
			420					425					430		
Phe	Gly		Gln	Lys	Tyr	Glu	Gln	Trp	He	Val	Thr	Val	Gln	Lys	Ala
		435					440					445			

Cys	Met	Val	Phe	Gln	Met	Pro	Asp	Lys	Asp	Glu	Glu	Ser	Arg	Пe	Cys
	450					455					460				
Lys	Ala	Leu	Phe	Leu	Tyr	Thr	Ser	His	Leu	Arg	Lys	Tyr	Asn	Asp	Ala
465					470					475					480
Leu	Пе	He	Ser	Glu	His	Ala	Arg	Met	Lys	Asp	Ala	Leu	Asp	Tyr	Leu
				485					490					495	
Lys	Asp	Phe	Phe	Ser	Asn	Val	Arg	Ala	Ala	Gly	Phe	Asp	Glu	He	Glu
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Gln	Asp	Leu	Thr	Gln	Arg	Phe	Glu	Glu	Lys	Leu	Gln	Glu	Leu	Glu	Ser
		515					520					525			
Val	Ser	Arg	Asp	Pro	Ser	Asn	Glu	Asn	Pro	Lys	Leu	Glu	Asp	Leu	Cys
	530					535					540				
Phe	He	Leu	Gln	Glu	Glu	Tyr	His	Leu	Asn	Pro	Glu	Thr	lle	Thr	He
545					550					555					560
Leu	Phe	Val	Lys	Thr	Arg	Ala	Leu	Val	Asp	Ala	Leu	Lys	Asn	Trp	lle
				565					570					575	
Glu	Gly	Asn	Pro	Lys	Leu	Ser	Phe	Leu	Lys	Pro	Gly	lle	Leu	Thr	Gly
			580					585					590		
Arg	Gly	Lys	Thr	Asn	Gln	Asn	Thr	Gly	Met	Thr	Leu	Pro	Ala	Gln	Lys
		595					600					605			
Cys	He	Leu	Asp	Ala	Phe	Lys	Ala	Ser	Gly	Asp	His	Asn	11e	Leu	He
	610					615					620				
Ala	Thr	Ser	Val	Ala	Asp	Glu	Gly	He	Asp	lle	Ala	Gln	Cys	Asn	Leu
625					630					635					640
Val	He	Leu	Tyr	Glu	Tyr	Val	Gly	Asn	Val	lle	Lys	Met	lle	Gln	Thr
				645					650					655	
Arg	Gly	Arg	Gly	Arg	Ala	Arg	Gly	Ser	Lys	Cys	Phe	Leu	Leu	Thr	Ser
			660					665					670		
Asn	Ala	Gly	Val	He	Glu	Lys	Glu	Gln	He	Asn	Met	Tyr	Lys	Glu	Lys
		675					680					685			
Met	Met	Asn	Asp	Ser	He	Leu	Arg	Leu	Gln	Thr	Trp	Asp	Glu	Ala	Val
	690					695					700				
Phe	Arg	Glu	Lys	Пe	Leu	His	He	Gln	Thr	His	G] u	Lys	Phe	He	Arg
705					710					715					720
Asp	Ser	Gln	Glu		Pro	Lys	Pro	Val	Pro	Asp	Lys	Glu	Asn	Lys	Lys
				725					730					735	

Leu Leu Cys Arg Lys Cys Lys Ala Leu Ala Cys Tyr Thr Ala Asp Val 745 Arg Val 11e Glu Glu Cys His Tyr Thr Val Leu Gly Asp Ala Phe Lys 755 760 765 Glu Cys Phe Val Ser Arg Pro His Pro Lys Pro Lys Gln Phe Ser Ser 775 780 Phe Glu Lys Arg Ala Lys Ile Phe Cys Ala Arg Gln Asn Cys Ser His 790 795 800 Asp Trp Gly Ile His Val Lys Tyr Lys Thr Phe Glu Ile Pro Val Ile 805 810 815 Lys Ile Glu Ser Phe Val Val Glu Asp Ile Ala Thr Gly Val Gln Thr 825 820 Leu Tyr Ser Lys Trp Lys Asp Phe His Phe Glu Lys IIe Pro Phe Asp 835 840 845 Pro Ala Glu Met Ser Lys 850

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<213> Homo sapiens

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 Thr
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 Arg

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 Glu
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 Asp
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 Gly
 Gln
 Pro<

85 90 95

Phe	Tyr	Ser	Asp	He	Leu	Ser	Pro	Gly	Thr	Leu	Asp	Gln	Leu	Gly	Glu
			100					105					110		
Val	Cys	Λrg	Gly	Pro	Arg	Met	Ser	Gln	Asn	Leu	Leu	Arg	Gln	Ala	Asp
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Leu	Asp	Lys	Phe	Thr	Pro	Arg	Val	Gly	Ser	Phe	Glu	Val	Pro	Glu	Asp
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Phe	Gln	Glu	Arg	Met	Glu	G1n	Gln	Cys	He	Gly	Ser	Thr	Thr	Arg	
145					150					155					160
Leu	Ala	Gln	Thr	Asp	Phe	Pro	Leu	Gln		Tyr	Glu	Pro	Lys		Gln
				165					170					175	
Val	Pro	Phe		Val	Leu	Pro	Gly	Gln	His	Pro	Arg	Lys		Glu	He
			180					185					190		
Glu	Arg		Lys	Gln	Gln	Tyr		Ser	Leu	Asp	He		GIn	Leu	Leu
	_	195					200				_	205			
Phe		GIn	GIy	He	Asp		Asn	Lys	Leu	Met		Arg	His	Leu	Asp
,,,	210		D.	C1	ті.	215	61	C1.	C1 .	11.	220	D	71.	DI.	D
	GIn	HIS	Pro	GIN		11e	Glu	Gln	Gly		Asp	Pro	11e	Phe	
225	Тум	Lou	Dwo	Lou	230	Vo.1	Dha	Aan	Aan	235	Aan	Dha	Aan	Cva	240
116	1 y 1.	Leu	rro	245	Lys	vai	rne	Asp	250	Gru	ASP	rne	ASP	255	Arg
Thr	Pro	Ara	Glu		Πο	Acn	Mot	G1 y		Glu	Pro	Glv	Sor		Acn
1111	110	ni g	260	цр	110	11311	SIC C	265	LCu	Giu	110	O1 y	270	ı,cu	лэр
Arø	Lvs	Pro		Pro	Glv	lvs	Ala	Leu	Leu	Pro	Thr	Asp		Phe	Leu
6	Lyo	275			0.,	Б,О	280	1500	,,,,,			285	1100		.500
Glv	His		Asp	Pro	Lvs	Ser		Lys	Leu	Lvs	Tvr		Trp	Cys	Glu
	290		•		-	295		•			300	•	·	-	
Val	Gly	Val	Leu	Asp	Tyr	Asp	Glu	Glu	Lys	Lys	Leu	Tyr	Leu	Val	His
305					310					315					320
Lys	Thr	Asp	Glu	Lys	Gly	Leu	Va]	Arg	Asp	Glu	Met	Gly	Arg	Pro	He
				325					330					335	
Leu	Asn	Ala	Gly	Val	Thr	Thr	Glu	Gly	Arg	Pro	Pro	Leu	Gln	Va]	Cys
			340					345					350		
Gln	Tyr	Trp	Val	Pro	Arg	Пе	G] n	Leu	Leu	Phe	Cys	Ala	Glu	Asp	Pro
		355					360					365			
Cys	Met	Phe	Ala	Gln	Arg	Val	Val	Gln	Ala	Asn	Ala	Leu	Arg	Lys	Asn
	370					375					380				

	Glu	Ala	Leu	Leu		Tyr	Asn	Leu	Tyr		Asp	Cys	Met	Pro	
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Asp	Gly	61n	H1S		116	ser	GIU	GIN		Leu	ser	Lys	11e		GIN
Trn	Ala	Lou	Sor	405	Pro	Ara	Mot	Ara	410	G1 v	Pro	Sor	Val	415	Glu
ιιþ	МІА	Leu	420	1111	110	Mg	Mer	425	ris	Oly	110	361	430	Leu	O, Lu
His	Leu	Ser		Len	Ala	Arø	Glu		Ser	Leu	Asn	Tvr		Arg	Ser
		435		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0	440					445		6	
Met	Asn	Lys	Ile	Asn	Phe	Asp		Va]	Val	Ser	Ser	Lys	Pro	Glu	Thr
	450					455					460				
Phe	Ser	Tyr	Val	Thr	Leu	Pro	Lys	Lys	Glu	Glu	Glu	Gln	Val	Pro	Glu
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Arg	Gly	Leu	Val	Ser	Val	Pro	Lys	Tyr	His	Phe	Trp	Glu	Gln	Lys	Glu
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			500					505					510		
Leu	Ser		Val	Arg	Ala	Glu		Asn	Lys	Val	Thr		Met	Ser	Leu
ъ,		515			0		520 T	6		•	<b>61</b>	525	131	6.1	6.1
Phe	His	Ser	Ser	Leu	Ser		Tyr	Ser	His	Leu		Glu	Phe	GIu	GIn
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545	GIH	261	0111	1 111		361	GIII	vai	OIII		ine	Leu	rys	nsp	
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Trp	11e	Ser	Ser	l.eu	550 Lvs	Val	Ala	Met	Arg	555 Ser	Ser	l.eu	Arg	Asp	560 Met
Trp	lle	Ser	Ser	Leu 565		Val	Ala	Met	Arg 570		Ser	Leu	Arg	Asp 575	
	lle Lys			565	Lys				570	Ser				575	Met
				565	Lys				570	Ser				575	Met
Ser		Gly	Trp 580	565 Tyr	Lys Asn	Leu	Tyr	Glu 585	570 Thr	Ser Asn	Trp	Glu	Val 590	575 Tyr	Met Leu
Ser	Lys	Gly	Trp 580	565 Tyr	Lys Asn	Leu	Tyr	Glu 585	570 Thr	Ser Asn	Trp	Glu	Val 590	575 Tyr	Met Leu
Ser Met	Lys	Gly Lys 595	Trp 580 Leu	565 Tyr Arg	Lys Asn Lys	Leu Leu	Tyr Met 600	Glu 585 Glu	570 Thr Leu	Ser Asn Val	Trp Lys	Glu Tyr 605	Val 590 Met	575 Tyr Leu	Met Leu Gln
Ser Met	Lys Ser	Gly Lys 595	Trp 580 Leu	565 Tyr Arg	Lys Asn Lys	Leu Leu	Tyr Met 600	Glu 585 Glu	570 Thr Leu	Ser Asn Val	Trp Lys	Glu Tyr 605	Val 590 Met	575 Tyr Leu	Met Leu Gln
Ser Met Asp	Lys Ser Thr	Gly Lys 595 Leu	Trp 580 Leu Arg	565 Tyr Arg Phe	Lys Asn Lys Leu Cys	Leu Leu Val 615	Tyr Met 600 Gln	Glu 585 Glu Asp	570 Thr Leu Ser	Ser Asn Val Leu Asn	Trp Lys Ala 620	Glu Tyr 605 Ser	Val 590 Met Phe	575 Tyr Leu Ser	Met Leu Gln Gln Met
Ser Met Asp Phe 625	Lys Ser Thr 610 11e	Gly Lys 595 Leu Ser	Trp 580 Leu Arg	565 Tyr Arg Phe Thr	Lys Asn Lys Leu Cys 630	Leu Leu Val 615 Cys	Tyr Met 600 Gln Ser	Glu 585 Glu Asp	570 Thr Leu Ser Leu	Ser Asn Val Leu Asn 635	Trp Lys Ala 620 Cys	Glu Tyr 605 Ser Thr	Val 590 Met Phe	575 Tyr Leu Ser	Met Leu Gln Gln Met 640
Ser Met Asp Phe 625	Lys Ser Thr 610	Gly Lys 595 Leu Ser	Trp 580 Leu Arg	565 Tyr Arg Phe Thr	Lys Asn Lys Leu Cys 630	Leu Leu Val 615 Cys	Tyr Met 600 Gln Ser	Glu 585 Glu Asp	570 Thr Leu Ser Leu Pro	Ser Asn Val Leu Asn 635	Trp Lys Ala 620 Cys	Glu Tyr 605 Ser Thr	Val 590 Met Phe	575 Tyr Leu Ser Asp	Met Leu Gln Gln Met 640
Ser Met Asp Phe 625 Val	Lys Ser Thr 610 11e	Gly Lys 595 Leu Ser Gly	Trp 580 Leu Arg Asp	565 Tyr Arg Phe Thr Asp 645	Lys Asn Lys Leu Cys 630 Leu	Leu Val 615 Cys	Tyr Met 600 Gln Ser	Glu 585 Glu Asp Val	570 Thr Leu Ser Leu Pro 650	Ser Asn Val Leu Asn 635 Tyr	Trp Lys Ala 620 Cys	Glu Tyr 605 Ser Thr	Val 590 Met Phe Asp	575 Tyr Leu Ser Asp Lys 655	Met Leu Gln Gln Met 640 Asn
Ser Met Asp Phe 625 Val	Lys Ser Thr 610 11e	Gly Lys 595 Leu Ser Gly	Trp 580 Leu Arg Asp	565 Tyr Arg Phe Thr Asp 645	Lys Asn Lys Leu Cys 630 Leu	Leu Val 615 Cys	Tyr Met 600 Gln Ser	Glu 585 Glu Asp Val	570 Thr Leu Ser Leu Pro 650	Ser Asn Val Leu Asn 635 Tyr	Trp Lys Ala 620 Cys	Glu Tyr 605 Ser Thr	Val 590 Met Phe Asp	575 Tyr Leu Ser Asp Lys 655	Met Leu Gln Gln Met 640 Asn

Ser	Thr		Leu	Glu	Gln	Phe		Ala	Ser	Leu	Leu		Leu	Phe	Asp
		675					680					685			
Lys	Gly	He	Leu	Ala	Thr	His	Ala	Val	Pro	Gln	Leu	Glu	Lys	Leu	Val
	690					695					700				
Met	Glu	Asp	He	Phe	Пe	Ser	Gly	Asp	Pro	Leu	Leu	Glu	Ser	Val	G]y
705					710					715					720
Leu	His	Glu	Pro	Leu	Va]	Glu	Glu	Leu	Arg	Ala	Thr	11e	Ala	Ser	Ala
				725					730					735	
Val	Ser	Lys	Ala	Met	He	Pro	Leu	Gln	Ala	Tyr	Ala	Lys	Glu	Tyr	Arg
			740					745					750		
Lys	Tyr	Leu	Glu	Leu	Asn	Asn	Asn	Asp	He	Ala	Ser	Phe	Leu	Lys	Thr
		755					760					765			
Tyr	Gln	Thr	Gln	Gly	Leu	Leu	Ala	Gln	G1u	Val	Arg	Glu	Val	Val	Leu
	770					775					780				
Thr	His	Leu	Arg	G]u	Lvs	Glu	He	Leu	Asp	Ser		Leu	Pro	Ser	Ser
785					790				-	795					800
	He	lle	Gly	Pro	Phe	Tyr	lle	Asn	Thr		Asn	Val	Lvs	Gln	
			-	805		•			810	·			•	815	
Leu	Ser	Lvs	Lvs	Arg	Lvs	Ala	Leu	Ala		Ser	Val	Leu	Asp		Leu
		•	820		•			825					830		
Ala	Lvs	Asn		His	Lvs	Glu	Val		Ser	lle	Cvs	Glu		Phe	Arg
	-	835			•		840	•			•	845			J
Ser	He		Arg	Lvs	He	Tyr	Glu	Lvs	Pro	Asn	Ser		Glu	Glu	Leu
	850			·		855					860				
Ala	Glu	Leu	Arg	Glu	Trp	Met	Lvs	Glv	He	Pro		Arg	Leu	Val	Glv
865			,		870		·	·		875					880
	Glu	Glu	Arg	He		Lys	Val	Met	Asp		Tvr	Gln	Val	Met	
				885					890					895	,
Glu	Phe	Leu	Tvr		Leu	Ser	Ser	Asp		Phe	Asn	Asp	Lvs		He
			900					905				,	910	1-	
Ala	Ser	Asn		Pro	Ser	Lys	He		Glv	Gln	He	Glu		Val	Gln
		915	,-			-2, -	920		0.2.5			925	.,		
Gln	Gln		Val	Glo	Asn	Glu		lve	Phe	Arø	Lvs		Gln	lle	Met
V. J. 1.1	930		. 4,4 3	O.U		935	O I U	<b>-</b> 20	, 110	Б	940		O 1 1 1	∪ بد	
Asp		Asn	Asn	Phe	Gln	Glu	lvs	Leu	Glo	Glv		Gln	Leu	Val	Val
,	~ 1 I I				O 111	O 1 U		1. C U	J , U	O L y		0111	200		, , ,

945					950					955					960
Ala (	31 y	Phe	Ser	lle	His	Val	Glu	He	Ser	Arg	Ala	His	Glu	lle	Ala
				965					970					975	
Asn C	Glu	Val	Arg	Arg	Val	Lys	Lys	Gln	Leu	Lys	Asp	Cys	Gln	Gln	Leu
			980			•		985					990		
Ala M	det	Leu	Tyr	Asn	Asn	Arg	Glu	Arg	He	Phe	Ser	Leu	Pro	lle	Thr
		995					1000				]	1005			
Asn 1	fyr	Asp	Lys	Leu	Ser	Arg	Met	Val	Lys	Glu	Phe	Gln	Pro	Tyr	Leu
10	010				]	1015				]	1020				
Asp I	Leu	Trp	Thr	Thr	Ala	Ser	Asp	Trp	Leu	Arg	Trp	Ser	Glu	Ser	Trp
1025				j	1030					1035					1040
Met A	Asn	Asp	Pro	Leu	Ser	Ala	lle	Asp	Ala	Glu	Gln	Leu	Glu	Lys	Asn
				1045					1050					1055	
Val V	Val	Glu	Ala	Phe	Lys	Thr	Met	His	Lys	Cys	Val	Lys	Gln	Phe	Lys
			1060					1065					1070		
Asp M	Met	Pro	Ala	Cys	Gln	Glu	Val	Ala	Leu	Asp	11e	Arg	Ala	Arg	He
	-	1075					1080					1085			
Glu (	Glu	Phe	Lys	Pro	Tyr	He	Pro	Leu	lle	Gln	Gly	Leu	Arg	Asn	Pro
10	090					1095					1100				
Gly M	Met	Arg	He	Arg	His	Trp	Glu	Thr	Leu	Ser	Asn	Gln	He	Asn	11e
1105					1110					1115					1120
Asn V	Val	Arg	Pro	Lys	Ala	Asn	Leu	Thr	Phe	Ala	Arg	Cys	Leu	Glu	Met
				1125					1130					1135	
Asn L	Leu	Gln	Asp	His	11e	Glu	Ser	Пe	Ser	Lys	Val	Ala	Glu	Val	Ala
			1140					1145					1150		
Gly l	Lys	Glu	Tyr	Ala	11e	Glu	Gln	Va1	6] y	Ser	His	Gln	Arg	Ala	Gln
		1155					1160					1165			
Pro I	Leu	Gln	Pro	Gly	Pro	Ala	Gly	G]n	Pro	Asp	Leu	Leu	Leu	Trp	GIn
1.1	170					1175					1180				
Pro 0	Gln	Pro	Leu	Gly	Arg	Met	Thr	Va]	He	Ser	Pro	He	Pro	Gly	Val
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Met /	Arg	Pro	Arg	Gly											
				1205											

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<213> Homo sapiens
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Gly Gly Thr Leu Arg Arg Ser Ser Ser Ala Pro Leu Ile His Gly Leu
             20
                                  25
                                                      30
Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg
                              40
                                                  45
Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Leu Leu Ser Ser Ser
                         55
                                              60
Pro Asn Arg Ile Pro Ser Ser Arg Leu His Gln Ile Lys Arg Glu Glu
 65
                     70
Gly Leu Asp Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met Gln
                 85
                                      90
Thr Ala Met Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Leu Ser
            100
                                 105
                                                     110
Asp Ser Asp Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg Ile
        115
                             120
Asp Phe Thr Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe Gly
                        135
                                             140
Lys Met Phe Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro Ser
145
                    150
                                         155
                                                             160
Pro Arg Arg Phe Ser Arg Arg Ser Gln Ser Pro Val Lys Cys Ile Arg
                                     170
Pro Ser Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu Thr Glu
            180
                                                     190
                                 185
Ser Gln Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu Ser Pro
                             200
                                                 205
Asp Ala Ala Gln Leu Ser Asp Leu Ser Ser Cys Ser Asp IIe Leu Asp
                        215
Gly Ser Ser Ser Ser Gly Leu Ser Ser Asp Pro Leu Ala Lys Gly
225
                    230
                                         235
                                                             240
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Ser Ala Thr Ala Glu Ser Pro Val Ala Cys Ser Asn Ser Cys Ser Ser

<211> 266

245 250 255
Phe Ile Leu Met Asp Asp Leu Ser Pro Lys

<210> 3868

<211> 910

<212> PRT

<213> Homo sapiens

<400> 3868

Met Thr Lys His Pro Leu Ala Met Tyr Pro Asn Leu Gly Glu Asp Met

1 5 10 15

Pro Pro Asp Leu Leu Gln Val Leu Lys Pro Leu Asp Pro Glu Arg 20 25 30

Lys Leu Glu Asp Ala Gly Ser Cys Glu Gly Gln Glu Lys Thr Thr Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$ 

Glu Pro Thr Glu Pro Gly Lys Tyr Pro Cys Gly Glu Phe Ser Pro Arg
50 55 60

Pro Pro Glu Thr Arg Val Ser Cys Leu Pro Pro Glu Pro Pro Lys Thr
65 70 75 80

Pro Val Ser Ser Leu Arg Pro Glu Pro Pro Glu Thr Gly Val Ser His
85 90 95

Leu Arg Pro Gln Pro Pro Lys Thr Gln Val Ser Ser Leu His Leu Glu 100 105 110

Pro Pro Glu Thr Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Thr
115 120 125

Gln Val Ser Ser Leu His Leu Glu Pro Pro Glu Thr Gly Val Ser His 130 135 140

Leu Tyr Leu Glu Pro Ser Gly Thr Gly Val Ser His Leu Cys Pro Glu 145 150 155 160

Pro Pro Lys Thr Arg Val Ser His Leu His Arg Glu Pro Pro Glu Thr

165 170 175

Gly Val Pro Asp Leu Cys Leu Glu Pro Pro Lys Ser Arg Val Ser His 180 185 190

Leu Arg Pro Glu Pro Ser Glu Thr Gly Val Ser His Leu His Pro Glu

		195					200					205			
Pro	Pro	Lys	Thr	Leu	Val	Ser	Ser	Leu	His	Pro	Glu	Pro	Pro	Glu	Thr
	210					215					220				
Gly	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr	Arg	Val	Ser	Pro
225					230					235					240
Leu	Arg	Gln	Leu	Pro	Pro	Glu	Ala	Gly	Val	Ser	His	Leu	Cys	Pro	G1u
				245					250					255	
Pro	Pro	Lys	Thr	Arg	Val	Pro	Pro	Leu	Arg	Pro	G] u	Thr	Pro	Lys	Asn
			260					265					270		
Gly	Val	Ser	Pro	Leu	Phe	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Пе	Ser	Asn
		275					280					285			
Leu	Arg	Ser	Glu	Pro	Pro	Lys	Пе	Gly	Val	Ser	His	Leu	Cys	Leu	Glu
	290					295					300				
Pro	Pro	Lys	Thr	Arg	Gly	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Glu	Thr
305					310					315					320
G1 y	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	Ser
				325					330					335	
Leu	His	Leu	Glu	Pro	Pro	Glu	Thr	Gly	Val	Ser	His	Leu	Cys	Pro	Glu
			340					345					350		
Pro	Pro	Glu	Lys	Asn	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Asp	Thr
		355					360					365			
Gly	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	His
	370					375					380				
Leu	Arg	Pro	Glu	Pro	Ser	Glu	Thr	Gly	Val	Ser	His	Leu	Arg	Pro	Glu
385					390					395					400
Pro	Pro	Lys	He	Leu	Val	Ser	Ser	Leu	His	Gln	Ala	Pro	Pro	Glu	Ser
				405					410					415	
Ser	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Glu	Thr	Gly	Val	Ser	His
			420					425					430		
Leu	Arg	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Met	Tyr	Ser	Leu	Arg	Pro	Glu
		435					440					445			
Pro	Pro	Asp	Thr	Gly	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Lys	Thr
	450					455					460				
Arg	Val	Ser	Ser	Leu	Pro	Pro	Glu	Pro	Pro	Glu	Thr	Gly	Val	Ser	His
465					470					475					480
Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr	Arg	Val	Ser	His	Leu	Arg	Pro	Glu

				485					490					495	
Pro	Pro	Glu	Thr	Gly	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Lys	Thr
			500					505					510		
Arg	Met	Tyr	Ser	Leu	Arg	Pro	Glu	Pro	Pro	Asn	Thr	Gly	Val	Ser	His
		515					520					525			
Leu	Cys	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	Ser	Leu	Pro	Pro	Glu
	530					535					540				
Pro	Pro	Glu	Thr	Gly	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr
545					550					555					560
Arg	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Glu	Thr	Gly	Val	Ser	Arg
				565					570					575	
Leu	His	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	Ser	Leu	His	Ala	Glu
			580					585					590		
Pro	Pro	Glu	Ser	Arg	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr
		595					600					605			
Gly	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Lys	Pro	Arg	Val	Ser	Ser
	610					615					620				
Leu	Arg	Pro	Glu	Pro	Leu	Glu	Thr	Arg	Val	Ser	His	Leu	Arg	Pro	Glu
625					630					635					640
Pro	Pro	Glu	Thr	Gly	Val	Ser	His	Leu	His	Pro	Glu	Leu	Pro	Lys	Pro
				645					650					655	
Arg	Val	Ser	Ser	Leu	His	Leu	Glu	Pro	Pro	Lys	Thr	Arg	Arg	Val	Ser
			660					665					670		
Ser	Leu	Arg	Leu	Glu	Pro	Pro	Lys	Thr	Gly	Arg	Val	Ser	Ser	Leu	Cys
		675					680					685			
Pro	Glu	Pro	Thr	Lys	Thr	Gly	Ala	Ser	His	Leu	Lys	Glu	Leu	Phe	Gln
	690					695					700				
Glu	Gly	Thr	Ser	Ser	Thr	Met	Glu	Cys	Val	Ser	Asp	Ser	Leu	Gln	Arg
705					710					715					720
Arg	His	Thr	Ser	Arg	Lys	Leu	Arg	Asp	Phe	Lys	Trp	Ala	Gly	Asp	Leu
				725					730					735	
Gly	Val	Asn	Glu	Glu	Ser	He	Ser	Ser	Leu	Phe	Asp	Phe	Thr	Pro	Glu
			740					745					750		
Cys	Arg	Ala	Thr	Tyr	Gln	Asp	Gln	Lys	Asn	Lys	Lys	Ala	Asn	Glu	Cys
		755					760					765			
Ser	Ser	Gly	Leu	Lys	Tyr	Ser	Met	Glu	Leu	Asp	Glu	Me t	Asp	G]u	Val

770	775		780
Lys Phe Phe Ser	Gln Glu Lys A	Asp Leu Asp Gly	Lys Ile Gln Asn Ala
785	790	795	800
Pro Asn Ser His	Ser Ala Gln I	lis Val Lys Met	Gly Tyr Gly Ala Trp
	805	810	815
Tyr Leu Lys Pro	Lys Leu Gly I	Lys Lys Leu Arg	Ser Asp Glu Pro Leu
820		825	830
lle Asp Pro Lys	Leu Val Leu (	Glu Lys Pro Asp	Glu Pro Asp lle Leu
835	8	340	845
Asp Gly Leu Tyr	Gly Pro Ile A	Ala Phe Lys Asp	Phe Ile Leu Ser Lys
850	855		860
Gly Tyr Glu Met	Pro Gly Ile	lle Gln Arg Leu	Phe Ala Arg Arg Gly
865	870	875	880
Trp Thr Tyr Asp	Ser Val Lys 3	fhr Pro lle Gln	Arg Ala Met Gln Val
	885	890	895
Tyr Lys Tyr Lys	Glu Asp Val 3	Thr Asp Ala Ser	Glu Glu Asp
900		905	910

<210> 3869

<211> 233

<212> PRT

<213> Homo sapiens

<400> 3869

 Met
 Arg
 Glu
 Trp
 Glu
 Asn
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 Leu
 Glu
 Glu
 Glu
 Leu
 Arg
 Heu
 Gly
 Heu
 Gly
 Arg
 Leu
 Gly
 Arg
 Heu
 Gly
 Arg
 Heu
 Gly
 Arg
 Heu
 H

Arg Thr Arg Gly Trp Gly Gly Asp Ser His Ala Met Thr Ala Ser Pro 65 70 75 80

55

Val Pro Ala Leu Gln Leu Val Ser Ser Lys Arg Asp Leu Val Leu Val

				85					90					95	
Lys	Glu	Ala	Leu	Ser	Trp	Tyr	Asp	Ala	Gln	Gln	His	Cys	Arg	Leu	His
			100					105					110		
Tyr	Thr	Asp	Leu	Ala	Asp	Leu	Gln	Pro	Ser	Gly	Leu	Trp	Lys	Leu	Tyr
		115					120					125			
Ser	Leu	Met	Thr	Ser	Thr	Pro	Ala	Trp	Пe	Gly	Leu	Phe	Phe	Asp	Ala
	130					135					140				
Ser	Thr	Ser	Gly	Leu	Arg	Trp	Ser	Ser	Gly	Ser	Thr	Phe	Thr	Ala	Leu
145					150					155					160
Glu	Trp	Gly	Gln	Lys	Leu	Pro	Glu	Phe	Gly	Val	Gly	Phe	Cys	Ala	Thr
				165					170					175	
Leu	Tyr	Thr	Trp	Leu	Lys	Leu	Pro	Ser	He	Gly	Ala	Ala	Ser	Cys	Thr
			180					185					190		
Ala	Gln	Lys	Pro	Phe	Leu	Cys	Tyr	Cys	Gly	Val	Phe	Thr	Phe	He	Phe
		195					200					205			
Gln	Ala	Trp	Ser	Phe	Pro	Gln	Gly	Pro	His	Ser	Val	Ala	Gln	Ala	Gly
	210					215					220				
Val	Gln	Trp	Cys	Asp	His	Ser	Ser	Leu							
225					230										
<210	)> 38	370													
<211	1> 12	27													
<212	2> PF	T7													

<400> 3870

<213> Homo sapiens

Met Glu Lys Ala Ser Gly Ala Leu Arg Cys Gln Gln Lys Arg Cys lle Ser Glu Leu Thr Val Met Thr Gln Ile Gly Arg Glu Gly Asn Met Trp Val Arg Val Ala Ala Met Gly Val Asn Met Ile Lys Tyr Gly Gly Gly Val Gln Ile Ser Trp Thr Trp Leu Gln Ser Val Phe Ile Phe Ser Leu Ser Glu Arg Val Phe Gly Phe Ser Ile Leu Leu Ile Leu Gln Ala Ile

His Tyr Val Pro Trp Glu Val Glu Trp Pro Ser Ser Leu Leu Cys Val Gly Tyr Thr Ala Cys Leu Thr Ser Leu Trp Val Leu His His Leu His Ala His Met lle Pro Leu Phe Glu Leu Met Ala Gly Asn Arg Thr <210> 3871 <211> 842 <212> PRT <213> Homo sapiens <400> 3871 Met Gly Ala Arg Ala Ala Gly Thr Ser Ser Gly Gly Gly Pro Arg Pro Cys Leu Ala Arg Gly Leu Ser Ala Ser Pro Phe Pro Ala Lys Gln Gln His Pro Gln Ala Gly Ala Ser Pro Ala Glu Leu Gln Gln Arg Ala Tyr Tyr Arg Ala Arg Gln Asp Ala Ala Ser Gln Pro Gly Leu Gly Phe Leu lle Ser Pro Ser Ser Cys Ser Ser Trp Gly Pro Gly Ser Phe Thr Arg Ser Cys Gly Tyr Pro Thr Leu Cys Ser Ser Trp 11e Ser Lys Arg Glu Pro Gly Glu Leu Ser Gly Val Trp Thr Ser Ala Trp Arg Thr His Ala Ala Phe Thr Gly Ser Gln Asp Leu Cys Leu Tyr Lys Gly Leu Leu Gly Ser lle Tyr Glu Asp Lys Thr Ala Leu Ser Leu Leu Gly Leu Gly Glu Glu Thr Asn Glu Glu Asp Glu Glu Glu Ser Asp Asn Gln Ser Val His 

Ser Ser Ser Glu Pro Leu Arg Asn Leu His Leu Asp lle Gly Ala Leu

				165					170					175	
Gly	G]y	Asp	Phe	Glu	Tyr	Glu	Glu	Ser	Leu	Arg	Thr	Ser	Gln	Pro	Glu
			180					185					190		
Glu	Lys	Lys	Asp	Val	Ser	Leu	Asp	Ser	Asp	Ala	Ala	Gly	Pro	Pro	Thr
		195					200					205			
Pro	Cys	Lys	Pro	Ser	Ser	Pro	Gly	Ala	Asp	Ser	Ser	Leu	Ser	Ser	Ala
	210					215					220				
Val	Gly	Lys	Gly	Arg	Gln	Gly	Ser	Gly	Ala	Arg	Pro	Gly	Leu	Pro	Glu
225					230					235					240
Lys	Glu	Glu	Asn	Glu	Lys	Ser	Glu	Pro	Lys	Ile	Cys	Arg	Asn	Leu	Val
				245					250					255	
Thr	Pro	Lys	Ala	Asp	Pro	Thr	Gly	Ser	Glu	Pro	Ala	Lys	Ala	Ser	Glu
			260					265					270		
Lys	Glu	Ala	Pro	Glu	Asp	Thr	Val	Asp	Ala	Gly	G1u	Glu	G1 y	Ser	Arg
		275					280					285			
Arg	Glu	Glu	Ala	Ala	Lys	Glu	Pro	Lys	Lys	Lys	Ala	Ser	Ala	Leu	Glu
	290					295					300				
Glu	Gly	Ser	Ser	Asp	Ala	Ser	Gln	Glu	Leu	Glu	Ile	Ser	Glu	His	Met
305					310					315					320
Lys	Glu	Pro	Gln	Leu	Ser	Asp	Ser	He	Ala	Ser	Asp	Pro	Lys	Ser	Phe
				325					330					335	
His	Gly	Leu	Asp	Phe	G1 y	Phe	Arg	Ser	Arg	lle	Ser	Glu	His	Leu	Leu
			340					345					350		
Asp	Val	Asp	Val	Leu	Ser	Pro	Val	Leu	Gly	Gly	Ala	Cys	Arg	Gln	Ala
		355					360					365			
Gln	Gln	Pro	Leu	Gly	lle	Glu	Asp	Lys	Asp	Asp	Ser	Gln	Ser	Ser	Gln
	370					375					380				
Asp	Glu	Leu	Gln	Ser	Lys	Gln	Ser	Lys	Gly	Leu	Glu	Glu	Arg	Tyr	His
385					390					395					400
Arg	Leu	Ser	Pro	Pro	Leu	Pro	His	Glu	Glu	Arg	Ala	Gln	Ser	Pro	Pro
				405					410					415	
Arg	Ser	Leu	Ala	Thr	Glu	Glu	Glu	Pro	Pro	Gln	Gly	Pro	Glu	Gly	Gln
			420					425					430		
Pro	Glu	Trp	Lys	Glu	Ala	Glu	Glu	Leu	Gly	Glu	Asp	Ser	Ala	Ala	Ser
		435					440					445			
1	Sor	Len	Gln	Leu	Ser	Leu	Gln	Arg	Arg	Ser	Thr	Glu	Pro	Val	Ala

	450					455					460				
Pro	Pro	Glu	Gln	Leu	Ser	Glu	Ala	Ala	Leu	Lys	Ala	Met	Glu	Glu	Ala
465					470					475					480
Val	Ala	Gln	Val	Leu	Glu	Gln	Asp	Gln	Arg	His	Leu	Leu	Glu	Ser	Lys
•				485					490					495	
Gln	Glu	Lys	Met	Gln	Gln	Leu	Arg	Glu	Lys	Leu	Cys	Gln	Glu	Glu	Glu
			500					505					510		
Glu	Glu	He	Leu	Arg	Leu	His	Gln	Gln	Lys	Glu	Gln	Ser	Leu	Ser	Ser
		515					520					525			
Leu	Arg	Glu	Arg	Leu	Gln	Lys	Ala	Ile	Glu	Glu	Glu	Glu	Ala	Arg	Met
	530					535					540				
Arg	Glu	Glu	Glu	Ser	Gln	Arg	Leu	Ser	Trp	Leu	Arg	Ala	Gln	Val	Gln
545					550					555					560
Ser	Ser	Thr	Gln	Ala	Asp	G]u	Asp	Gln	He	Arg	Ala	Glu	Gln	Glu	Ala
				565					570					575	
Ser	Leu	Gln	Lys	Leu	Arg	Glu	Glu	Leu	Glu	Ser	G1n	Gln	Lys	Ala	Glu
			580					585					590		
Arg	Ala	Ser	Leu	Glu	Gln	Lys	Asn	Arg	Gln	Met	Leu	Glu	Gln	Leu	Lys
		595					600					605			
Glu	Glu	He	Glu	Ala	Ser	Glu	Lys	Ser	Glu	Gln	Ala	Ala	Leu	Asn	Ala
	610					615					620				
	Lys	Glu	Lys	Ala		Glņ	Gln	Leu	Arg	Glu	Gln	Leu	Glu	Gly	Glu
625					630					635					640
Arg	Lys	Glu	Ala		Ala	Thr	Leu	Glu		Glu	His	Ser	Ala		Leu
				645		_			650					655	_
Glu	Arg	Leu		Ser	Ser	Leu	Glu	005		His	Arg	Glu		Val	Ser
C		C1	660	,		0.1	0.1	665		0.1		0.1	670		0.7
Ser	Leu		Lys	Lys	11e	GIn	Glu	Ala	61n	GIn	Lys		Glu	Ala	GIn
1	C1	675	C	,	C1	C1	680	C1	11.		17 1	685	<b>6</b> 1		O
Leu		Lys	Cys	Leu	GIŅ		Val	61u	HIS	Arg		HIS	GIn	Lys	Ser
т	690	V = 1	110	C1	Т	695	n: _	C1	1	C	700	1	1	Λ	C1
	nis	val	Ала	GIY		61u	His	GIU	Leu		ser	reu	Leu	Arg	
705 Lvs	Ara	Cln.	61	Vic.1	710	C1	Glu	u; ~	C1	715	A 35. ~	Lav	۸ ۵۰۰۰	1	720 Mot
Lys	ив	0111	UIU	725	UIU	оту	OIU	шѕ	730	Arg	vi. g	Leu	asp	735	мет
lve	Glu	Glu	Hic		Gle	Val	Mot	410		Ala	Δra	Glu	Glr		Glu

740 745 750 Ala Glu Glu Arg Lys Gln Arg Ala Glu Leu Leu Gly His Leu Thr Gly 760 Glu Leu Glu Arg Leu Gln Arg Ala His Glu Arg Glu Leu Glu Thr Val 775 780 Arg Gln Glu Gln His Lys Arg Leu Glu Asp Leu Arg Arg Arg His Arg 790 795 Glu Gln Glu Arg Lys Leu Gln Asp Leu Glu Leu Asp Leu Glu Thr Arg 805 810 815 Ala Lys Asp Val Lys Ala Arg Leu Ala Leu Leu Glu Val Gln Val Arg 820 825 830 Asp Leu Gln Glu Ser Leu Thr Ser Glu Ser 835 840

<210> 3872

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3872

Met Leu Trp Arg Lys Gly Met Arg Ser Gln Gly Ser Glu Val Arg Pro

1 5 10 15

Ala 11e Pro Gln Val Cys Gly Trp Ala Arg Arg Gln Ala Pro Lys Asn 20 25 30

Leu Thr Cys Asp Pro Gly Cys Pro His Arg Leu Lys Gly Leu Arg Asp
35 40 45

Leu Glu Thr Gly Asn Met Val Cys Gly Gly Pro Val Asp Pro Gly Val
50 55 60

Gly Val Arg Asp Gly Asp Arg His Arg Asp 11e Leu Arg Ala Arg Asp
65 70 75 80

Arg Lys Thr Lys Asn Asp Arg Asn Arg Asp Thr Glu Arg Tyr Arg Glu 85 90 95

Gly Gln Arg Pro Arg Lys Pro Glu

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<400>	3874		
Met Pa	ro Thi	Arg	Se

(-10)	<i>)</i>	) i -1													
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l				5					10					15	
Ser	Met	Thr	Glu	Ala	Asp	Lys	Thr	Lys	Pro	Leu	Ser	Lys	Val	Ser	Sea
			20					25					30		
Ile	Ala	Val	Gln	Thr	Val	Ala	Glu	Ile	Ser	Val	Gln	Thr	Glu	Pro	Va:
		35					40					45			
Gly	Thr	He	Arg	Thr	Pro	Ser	He	Arg	Ala	Arg	Val	Asp	Ala	Lys	Va:
	50	•				55					60				
Glu	He	He	Lys	His	He	Ser	Ala	Pro	Glu	Lys	Thr	Tyr	Lys	G1 y	Gl
65					70					75					80
Ser	Leu	Gly	Cys	Gln	Thr	Glu	Ala	Asp	Ser	Asp	Thr	Gln	Ser	Pro	Glı
				85					90					95	
Tyr	Leu	Ser	Ala	Thr	Ser	Pro	Pro	Lys	Asp	Lys	Lys	Arg	Pro	Thr	Pro
			100					105					110		

Leu Glu Ile Gly Tyr Ser Ser His Leu Arg Ala Asp Ser Thr Val Gln Leu Ala Pro Ser Pro Pro Lys Ser Pro Lys Val Leu Tyr Ser Pro Ile Ser Pro Leu Ser Pro Gly Lys Ala Leu Glu Ser Ala Phe Val Pro Tyr Glu Lys Pro Leu Pro Asp Asp Ile Ser Pro Gln Lys Val Leu His Pro Asp Met Ala Lys Val Pro Pro Ala Ser Pro Lys Thr Ala Lys Met Met Gln Arg Ser Met Ser Asp Pro Lys Pro Leu Ser Pro Thr Ala Asp Glu Ser Ser Arg Ala Pro Phe Gln Tyr Thr Glu Gly Tyr Thr Thr Lys Gly Ser Gln Thr Met Thr Ser Ser Gly Ala Gln Lys Lys Val Lys Arg Thr

Leu Pro Asn Pro Pro Pro Glu Glu lle Ser Thr Gly Thr Gln Ser Thr

				245					250					255	
Phe	Ser	Thr	Met	Gly	Thr	Val	Ser	Arg	Arg	Arg	lle	Cys	Arg	Thr	Asn
			260					265					270		
Thr	Met	Ala	Arg	Ala	Lys	He	Leu	Gln	Asp	lle	Asp	Arg	Glu	Leu	Asp
		275					280					285			
Leu	Val	Glu	Arg	Glu	Ser	Ala	Lys	Leu	Arg	Lys	Lys	Gln	Ala	Glu	Leu
	290					295					300				
Asp	Glu	Glu	Glu	Lys	Glu	Ile	Asp	Ala	Lys	Leu	Arg	Tyr	Leu	Glu	Met
305					310					315					320
Gly	lle	Asn	Arg	Arg	Lys	Glu	Ala	Leu	Leu	Lys	Glu	Arg	Glu	Lys	Arg
				325					330					335	
Glu	Arg	Ala	Tyr	Leu	Gln	Gly	Val	Ala	Glu	Asp	Arg	Asp	Tyr	Met	Ser
			340					345					350		
Asp	Ser	Glu	Val	Ser	Ser	Thr	Arg	Pro	Thr	Arg	He	Glu	Ser	Gln	His
		355					360					365			
Gly	He	Glu	Arg	Pro	Arg	Thr	Ala	Pro	Gln	Thr	Glu	Phe	Ser	Gln	Phe
	370					375					380				
He	Pro	Pro	Gln	Thr	Gln	Thr	Glu	Ser	Gln	Leu	Val	Pro	Pro	Thr	Ser
385					390					395					400
Pro	Tyr	Thr	Gln	Tyr	Gln	Tyr	Ser	Ser	Pro	Ala	Leu	Pro	Thr	Gln	Ala
				405					410					415	
$\operatorname{Pro}$	Thr	Ser	Tyr	Thr	Gln	Gln	Ser	His	Phe	Glu	Gln	Gln	Thr	Leu	Tyr
			420					425					430		
His	Gln	G1n	Val	Ser	Pro	Tyr	61n	Thr	Gln	Pro	Thr	Phe	Gln	Ala	Val
		435					440					445			
Ala	Thr	Met	Ser	Phe	Thr	Pro	Gln	Val	Gln	Pro	Thr	Pro	Thr	Pro	Gln
	450					455					460				
Pro	Ser	Tyr	Gln	Leu	Pro	Ser	G1n	Met	Met	Val	lle	Gln	Gln	Lys	Pro
465					470					475					480
Arg	61n	Thr	Thr	Leu	Tyr	Leu	Glu	Pro	Lys	lle	Thr	Ser	Asn	Tyr	Glu
				485					490					495	
Val	He	Arg	Asn	Gln	Pro	Leu	Met	11e	Ala	Pro	Val	Ser	Thr	Asp	Asn
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Thr	Phe	Ala	Val	Ser	His	Leu	Gly	Ser	Lys	Tyr	Asn	Ser	Leu	Asp	Leu
		515					520					525			
Arg	He	Glv	Len	Glu	Glu	Arø	Ser	Ser	Met	Ala	Ser	Ser	Pro	He	Ser

	530					535					540				
Ser	lle	Ser	Ala	Asp	Ser	Phe	Tyr	Ala	Asp	Ile	Asp	His	His	Thr	Pro
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Arg	Asn	Tyr	Val	Leu	He	Asp	Asp	11e	Gly	Glu	lle	Thr	Lys	Gly	Thr
				565					570					575	
Ala	Ala	Leu	Ser	Thr	Ala	Phe	Ser	Leu	His	Glu	Lys	Asp	Leu	Ser	Lys
			580					585					590		
Thr	Asp	Arg	Leu	Leu	Arg	Thr	Thr	Glu	Thr	Arg	Arg	Ser	Gln	Glu	Val
		595					600					605			
Thr	Asp	Phe	Leu	Ala	Pro	Leu	Gln	Ser	Ser	Ser	Arg	Leu	His	Ser	Tyr
	610					615					620				
Val	Lys	Ala	Glu	Glu	Asp	Pro	Met	Glu	Asp	Pro	Tyr	Glu	Leu	Lys	Leu
625					630					635					640
Leu	Lys	His	Gln	lle	Lys	Gln	Glu	Phe	Arg	Arg	Gly	Thr	Glu	Ser	Leu
				645					650					655	
Asp	His	Leu	Ala	Gly	Leu	Ser	His	Tyr	Tyr	His	Ala	Asp	Thr	Ser	Tyr
			660					665					670		
Arg	His	Phe	Pro	Lys	Ser	Glu	Lys	Tyr	Ser	Ile	Ser	Arg	Leu	Thr	Leu
		675					680					685			
Glu	Lys	Gln	Ala	Ala	Lys	Gln	Leu	Pro	Ala	Ala	lle	Leu	Tyr	Gln	Lys
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G]n	Ser	Lys	His	Lys	Lys	Ser	Leu	lle	Asp	Pro	Lys	Met	Ser	Lys	Phe
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Ser	Pro	He	Gln	Glu	Ser	Arg	Asp	Leu	Glu	Pro	Asp	Tyr	Ser	Ser	Tyr
				725					730					735	
Met	Thr	Ser	Ser	Thr	Ser	Ser	He	G1 y	Gly	He	Ser	Ser	Arg	Ala	Arg
			740					745					750		
Leu	Leu	Gln	Asp	Asp	He	Thr	Phe	Gly	Leu	Arg	Lys	Asn	He	Thr	Asp
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Gln	Gln	Lys	Phe	Met	Gly	Ser	Ser	Leu	Gly	Thr	Gly	Leu	Gly	Thr	Leu
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Gly	Asn	Thr	He	Arg	Ser	Ala	Leu	Gln	Asp	Glu	Ala	Asp	Lys	Pro	Tyr
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Ser	Ser	Gly	Ser	Arg	Ser	Arg	Pro	Ser	Ser	Arg	Pro	Ser	Ser	Val	Tyr
				805					810					815	
Glv	Len	Asn	Leu	Ser	He	lvs	Arg	Asn	Ser	Ser	Ser	Ser	Ser	Leu	Arg

			820					825					830		
Leu	Lys	Ala	Gln	Glu	Ala	Glu	Ala	Leu	Asp	Val	Ser	Phe	Ser	His	Ala
		835					840					845			
Ser	Ser	Ser	Ala	Arg	Thr	Lys	Pro	Thr	Ser	Leu	Pro	He	Ser	Gln	Ser
	850					855					860				
Arg	Gly	Arg	He	Pro	He	Val	Ala	Gln	Asn	Ser	Glu	Glu	Glu	Ser	Pro
865					870					875					880
Leu	Ser	Pro	Val	Gly	Gln	Pro	Met	Gly	Met	Ala	Arg	Ala	Ala	Ala	Gly
				885					890					895	
Pro	Leu	Pro	Pro	Ile	Ser	Ala	Asp	Thr	Arg	Asp	Gln	Phe	Gly	Ser	Ser
			900					905					910		
His	Ser	Leu	Pro	Glu	Val	Gln	Gln	His	Met	Arg	Glu	Glu	Ser	Arg	Thr
		915					920					925			
Arg	Gly	Tyr	Asp	Arg	Asp	Пe	Ala	Phe	He	Met	Asp	Asp	Phe	Gln	His
	930					935					940				
Ala	Met	Ser	Asp	Ser	Glu	$\operatorname{Gl} y$	Lys	Leu	Gly	Leu	Lys	Leu	Pro	Cys	Tyr
945					950					955					960
Ser	Gln	Asn	Ser	Asn	Ser	Tyr	Phe	Ser	Ala	Cys	Leu	Ile	Ser	Leu	Leu
				965					970					975	
Gln	Arg	Cys	He	Leu	Leu	Phe	Leu	Val	Cys	Leu	Leu	His	Val	Tyr	Phe
			980					985					990		
Asn	Phe	He	Ser	Cys	Lys	Trp	Lys	Phe	Tyr	His	Val	Tyr	Arg	Phe	Cys
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Ser	Met	Leu	Phe	Phe	He										
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<211> 166

<212> PRT

<213> Homo sapiens

<400> 3875

Met Thr Val Val Val Pro Leu Ile Ile Gly Gln Ile Val Arg Arg Tyr

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11e Lys Asp Trp Leu Glu Arg Lys Lys Pro Pro Phe Gly Ala Ile Ser

Ser Ser Val Leu Leu Met 11e 11e Tyr Thr Thr Phe Cys Asp Thr Phe Ser Asn Pro Asn Ile Asp Leu Asp Lys Phe Ser Leu Val Leu Ile Leu Phe IIe Ile Phe Ser Ile Gln Leu Ser Phe Met Leu Leu Thr Phe IIe Phe Ser Thr Arg Asn Asn Ser Gly Phe Thr Pro Ala Asp Thr Val Ala Ile Ile Phe Cys Ser Thr His Lys Ser Leu Thr Leu Gly Ile Pro Met Leu Lys Ile Val Phe Ala Gly His Glu His Leu Ser Leu Ile Ser Val Pro Leu Leu Ile Tyr His Pro Ala Gln Ile Leu Leu Gly Ser Val Leu Val Pro Thr Ile Lys Ser Trp Met Val Ser Arg Gln Lys Gly Val Lys Leu Thr Arg Pro Thr Val <210> 3876 <211> 144 <212> PRT <213> Homo sapiens <400> 3876

 Met
 Ser
 Trp
 Thr
 Phe
 Arg
 Gly
 Gly
 Ser
 Ser
 Trp
 Thr
 Cys
 Leu
 Gly
 Val

 1
 5
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 Leu
 Ala
 Pro
 Tyr
 Gly
 Ala
 Ser
 Cys
 Leu
 Pro
 Leu

 Gly
 Leu
 His
 Ser
 Cys
 Thr
 His
 Pro
 Thr
 Arg
 Pro
 Gly
 Leu
 Thr
 His

 Gly
 Glu
 Ser
 Trp
 Leu
 Thr
 Ala
 Ile
 Cys
 Leu
 Phe
 Gly
 Ser
 Ser
 Val
 Pro

 Gly
 Glu
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 Trp
 Leu
 Thr
 Ala
 Ile
 Cys
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⟨210⟩ 3877

<211> 149

<212> PRT

<213> Homo sapiens

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lle Leu Val Asp Gly Pro lle Arg Thr Leu Val Gly Lys Lys Arg Gln 130 135 140

His Lys Thr Val Arg

<210> 3878

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3878

Met Cys Gly Pro Ser Gly Asp Gly Asp Pro Arg Cys Gly Leu Arg Asn

1 5 10 15

Gln Cys Val Ser Trp Thr Leu Leu Thr Ser Lys Leu Glu Gln Lys Arg  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

His Leu Cys Gly Ala Leu Thr His Pro Arg Tyr Phe Ala Thr Ser Phe 35 40 45

Asn Ile Pro Ser Leu Arg Thr Gln Thr Tyr Met Gly Asp Arg Gly Val
50 55 60

Tyr Asn Pro Ile Ser Tyr Leu Tyr Thr Lys Pro Trp Ala Thr Glu Ser
65 70 75 80

Val Lys Phe Met Val Ile Lys Pro Leu His Arg Gly Gly Pro Val Ser 85 90 95

Pro Trp Lys His His Thr Leu Leu Pro Ala Gln Glu Val Met Glu Gly
100 105 110

Asp Gly

<210> 3879

<211> 937

<212> PRT

<213> Homo sapiens

<400> 3879

Met Gly Val Lys Lys Lys Glu Met Gln Val Ala Ala Leu Thr lle
1 5 10 15

Cys His Gln Asp Leu Glu Thr Leu Lys Ser Phe Ala Asp Val Glu Gly

			20					25					30		
Lys	Asn	Leu 35	Ala	Ser	Leu	Leu	Leu 40	His	Cys	Val	G1n	Leu 45	Thr	Asp	Gly
Val	Ser		Ile	His	Tyr	He		Gln	lle	Val	Pro		Leu	Glu	Lys
	50					55					60				
Ala 65	Asp	Lys	Asn	Gly	Met 70	Cys	Asp	Pro	Thr	11e 75	Gln	Ser	Cys	Leu	Asp 80
	Leu	Ala	Gly	lle		Leu	Ser	Leu	Ser		Lys	Asn	Pro	Leu	Lys
				85					90					95	
Lys	Val	Leu	Ala	Ser	Ser	Leu	Asn	Ser	Leu	Pro	Asp	Phe	Phe	Leu	Pro
			100					105					110		
Glu	Ala	Met 115	His	Arg	Phe	Thr	Ser 120	Arg	Leu	Gln	Glu	Glu 125	Leu	Asn	Thr
Thr	Asp 130	Leu	Tyr	Ser	Tyr	Arg	Lys	Val	Thr	Asp	Asn 140	lle	Ser	Ser	Cys
Mot		Acn	Pho	Acn	Lou		Ara	Δla	Sor	Val		Aen	Leu	Leu	lve
145	Olu	лы	THE	ЛЭП	150	Gly	AI g	MIG	561	155	ASII	ASII	Leu	Leu	160
Asn	Val	Leu	His	Phe	Leu	Gln	Lys	Ser	Leu	lle	Glu	He	Leu	Glu	Glu
				165			•		170					175	
Asn	Arg	Lys	Cys		Gly	Asn	His	lle		Gln	Thr	Gln	Leu	Met	Asn
			180				•	185					190		
Asp	Leu	Leu	Val	Gly	lle	Arg	Val	Ser	Met	Met	Leu	Val	Gln	Lys	Val
		195					200					205			
G]n	Asp	Phe	Gln	Gly	Asn	Leu	Trp	Lys	Thr	Ser	Asp	Ser	Pro	He	Trp
	210					215					220				
Gln	Asn	Met	Cys	Gly	Leu	Leu	Ser	He	Phe	Thr	Lys	Val	Leu	Ser	Asp
225					230					235					240
Asp	Asp	Leu	Leu		Thr	Val	Gln	Ser		Ser	Gly	Leu	Ala		He
				245					250					255	
Leu	Phe	He		Thr	Met	Phe	His		Ser	Glu	Lys	He	Pro	His	Leu
			260					265		_		_	270		
He	Ser	Ser 275	Val	Leu	Leu	Arg	Ser 280	Val	Asp	Cys	Thr	Ser 285	Va]	Pro	Glu
Trn	Phe		Ser	Ser	Cvs	Arg		Leu	Cvs	Cvs	Glv		11e	Ser	G1n
P	290				-,0	295			- , -	- , -	300				
Sor	A10	Vol	Lou	Dho	Lou	Cyc	Cln	61 v	Thr	Lou	Λla	Mot	الم أ	Aen	Trn

305					310					315					320
Gln	Asn	Gly	Ser	Met	Gly	Arg	Ser	Gly	Glu	Ala	Leu	Leu	Leu	Asp	Thr
				325					330					335	
Ala	His	Val	Leu	Phe	Thr	Leu	Ser	Ser	Gln	Ile	Lys	Glu	Pro	Thr	Leu
			340					345					350		
Glu	Met	Phe	Leu	Ser	Arg	He	Leu	Ala	Ser	Trp	Thr	Asn	Ser	Ala	He
		355					360					365			
Gln	Val	Leu	Glu	Ser	Ser	Ser	Pro	Ser	Leu	Thr	Asp	Ser	Leu	Asn	Gly
	370					375					380				
Asn	Ser	Ser	Ile	Val	Gly	Arg	Leu	Leu	Glu	Tyr	Val	Tyr	Thr	His	Trp
385					390					395					400
Glu	His	Pro	Leu	Asp	Ala	Leu	Arg	His	Gln	Thr	Lys	He	Met	Phe	Lys
				405					410					415	
Asn	Leu	Leu	Gln	Met	His	Arg	Leu	Thr	Val	Glu	Gly	Ala	Asp	Phe	Val
			420					425			•		430		
Pro	Asp	Pro	Phe	Phe	Val	Glu	Leu	Thr	Glu	Ser	Leu	Leu	Arg	Leu	Glu
		435					440					445			
Trp	His	Ile	Lys	Gly	Lys	Tyr	Thr	Cys	Leu	Gly	Cys	Leu	Val	Glu	Cys
	450					455					460				
He	Gly	Val	Glu	His	He	Leu	Ala	He	Asp	Lys	Thr	He	Pro	Ser	Gln
465					470					475					480
He	Leu	Glu	Val	Met	Gly	Asp	Gln	Ser	Leu	Val	Pro	Tyr	Ala	Ser	Asp
				485					490					495	
Leu	Leu	Glu	Thr	Met.	Phe	Arg	Asn	His	Lys	Ser	His	Leu	Lys	Ser	Gln
			500					505					510		
Thr	Ala	Glu	Ser	Ser	Trp	lle	Asp	Gln	Trp	His	Glu	Thr	Trp	Val	Ser
		515					520					525			
												٠			
Pro	Leu	Leu	Phe	Ile	Leu	Cys	Glu	Gly	Asn	Leu	Asp	Gln	Lys	Ser	Tyr
	530					535					540				
Val	Ile	Asp	Tyr	Tyr	Leu	Pro	Lys	Leu	Leu	Ser	Tyr	Ser	Pro	Glu	Ser
545					550					555					560
Leu	Gln	Tyr	Met	Val	Lys	He	Leu	Gln	Thr	Ser	lle	Asp	Ala	Lys	Thr
				565					570					575	
Gly	Gln	Glu	Gln	Ser	Phe	Pro	Ser	Leu	Gly	Ser	Cys	Asn	Ser	Arg	Gly
			580					585					590		

Ala	Leu	Gly	Ala	Leu	Met	Ala	Cys	Leu	Arg	Πe	Ala	Arg	Ala	His	Gly
		595					600					605			
His	Leu	Gln	Ser	Ala	Thr	Asp	Thr	Trp	Glu	Asn	Leu	Val	Ser	Asp	Ala
	610					615					620				
Arg	He	Lys	Gln	Gly	Leu	He	His	Gln	His	Cys	Gln	Val	Arg	He	Asp
625					630					635					640
Thr	Leu	Gly	Leu	Leu	Cys	Glu	Ser	Asn	Arg	Ser	Thr	Glu	He	Val	Ser
				645					650					655	
Met	Glu	Glu		Gln	Trp	lle	Gln		Phe	Ile	Thr	Tyr		Leu	Asn
			660					665					670		
Ser	Gln		Pro	Gly	Val	Arg		Gln	He	Cys	Ser		Leu	Lys	Lys
		675					680	_	~ 1		_	685			6.3
Leu		Cys	Arg	He	Gln		Ser	Ser	GIn	Val		Tyr	Lys	Leu	Glu
61	690		C			695	D	C1		C1	700	TI		C1	11.
	Ser	Lys	Ser	Lys	Arg	GIU	Pro	GIU	Asn		Leu	inr	Lys	GIN	
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Pro	ser	vai	Ser	725	Gln	6111	1 9 1	Lys	730	rne	мес	Sei	261	735	Cys
Aen	Sor	Lou	Pho		Ala	Lou	Pho	Pro		Ser	Ser	Tyr	Ser		Arg
ASII	561	Leu	740	oru	MIG	Leu	1110	745	Oly	001	501	1 9 1	750	1111	m s
Phe	Ser	Ala		Thr	He	Leu	Glv		11e	Ala	Glu	Val		His	Va1
		755					760					765			
Pro	Glu	Gly	Arg	lle	Tyr	Thr	Val	Tyr	Gln	Leu	Ser	His	Asp	11e	Asp
	770					775					780				
Val	Gly	Arg	Phe	Gln	Thr	Leu	Met	Glu	Cys	Phe	Thr	Ser	Thr	Phe	Glu
785					790					795					800
Asp	Val	Lys	lle	Leu	Ala	Phe	Asp	Leu	Leu	Met	Lys	Leu	Ser	Lys	Thr
				805					810					815	
Ala	Val	His	Phe	Gln	Asp	Ser	Gly	Lys	Leu	Gln	Gly	Leu	Phe	Gln	Ala
			820					825					830		
Ala	Leu	Glu	Leu	Ser	Thr	Ser	Thr	Lys	Pro	Tyr	Asp	Cys	Val	Thr	Ala
		835					840					845			
Ser	Tyr	Leu	Leu	Asn	Phe	Leu	He	Trp	Gln	Asp	Ala	Leu	Pro	Ser	Ser
	850					855					860				
Leu	Ser	Ala	Tyr	Leu	Thr	Gln	G1n	Val	Ala	Cys	Asp	Asn	Gly	Asp	
865					870					875					880

 Pro
 A1a
 A1a
 Val
 Val
 G1u
 Arg
 Asn
 Thr
 Leu
 Met
 Val
 Ile
 Lys
 Cys
 Leu

 Met
 G1u
 Asn
 Leu
 G1u
 G1u
 G1u
 Ser
 G1n
 Ala
 G1u
 Asn
 Ser
 Leu
 Leu

 G1n
 Ala
 Ala
 Ala
 Ala
 Phe
 Pro
 Met
 Tyr
 G1y
 Arg
 Val
 His
 Cys
 Ile
 Thr

 G1y
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<210> 3880

<211> 1013

<212> PRT

<213> Homo sapiens

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Arg Cys Lys Ser Leu Phe Ser Gly Lys Lys Ser Leu Thr Lys Thr Asp 115 120 125

Val Met Val 11e Tyr Gly Ala Val Ala Leu His Ala Pro Lys Lys Gln 130 135 140

Leu Leu Ser Arg Leu Asn Gln Asp 11e 11e Ser Gln Val Leu Ser Leu

145					150					155					160
His	Gly	Gln	Cys	Ser	Gln	Val	Leu	Gly	Met	Ser	Val	Met	Asn	Lys	Asp
				165					170					175	
Met	Asp	Leu	Gln	Met	Ser	Phe	Thr	Arg	Ser	He	Thr	Glu	He	Gly	Πle
			180					185					190		
Ala	Val	Gln	Asp	Ala	Glu	Asp	Gln	Gly	Phe	Gln	Phe	Ser	Tyr	Lys	Glu
		195					200					205			
Met	Leu	He	Gly	Tyr	Met	Leu	Asp	Phe	He	Arg	Asp	Glu	Pro	Leu	Asp
	210					215					220				
Ser	Leu	Ala	Ser	Pro	lle	Arg	Trp	Lys	Ala	Leu	Ile	Ala	Ile	Arg	Tyr
225					230					235					240
Leu	Ser	Lys	Leu	Lys	Pro	Gln	Leu	Ser	Leu	Gln	Asp	His	Leu	Asn	He
				245					250					255	
Leu	Glu	Glu	Asn	He	Arg	Arg	Leu	Leu	Pro	Leu	Pro	Pro	Leu	Glu	Asn
			260					265					270		
Leu	Lys	Ser	Glu	Gly	Gln	Thr	Asp	Lys	Asp	Lys	Glu	His	He	Gln	Phe
		275					280					285			
Leu	Tyr	Glu	Arg	Ser	Met	Asp	Ala	Leu	Gly	Lys	Leu	Leu	Lys	Thr	Met
	290					295					300				
Met	Trp	Asp	Asn	Val	Asn	Ala	Glu	Asp	Cys	Gln	Glu	Met	Phe	Asn	Leu
305					310					315					320
Leu	Gln	Met	Trp	Leu	Val	Ser	Gln	Lys	Glu	Trp	Glu	Arg	Glu	Arg	Ala
				325					330					335	
Phe	Gln	He	Thr	Ala	Lys	Val	Leu	Thr	Asn	Asp	He	Glu	Ala	Pro	Glu
			340					345					350		
Asn	Phe	Lys	Ile	Gly	Ser	Leu	Leu	Gly	Leu	Leu	Ala	Pro	His	Ser	Cys
		355					360					365			
Asp	Thr	Leu	Pro	Thr	lle		Gln	Ala	Ala	Ala	Ser	Ser	Thr	He	Gly
	370					375					380				
Leu	Phe	Tyr	He	Lys	Gly	He	His	Leu	Glu		Glu	Arg	Leu	Gln	Gly
385					390					395					400
Leu	Gln	Glu	Gly		Glu	Ser	Asp	Asp		Gln	Val	Gln	He		He
				405					410					415	
Ser	Ser	Lys		Ala	Lys	He	Val		Lys	Phe	He	Pro		G1u	Glu
***			420	,				425			,	0.7	430		
Hρ	1.611	Met	Phe	Len	Glu	Glu	Met	leu	Asn	GIV	Len	Glu	Ser	Len	Asn

		435					440					445			
Pro	Thr	Cys	Thr	Lys	Ala	Cys	Gly	He	Trp	Met	11e	Thr	Val	Leu	Lys
	450					455					460				
Gln	Gln	Gly	Ala	Ala	Leu	Glu	Asp	Gln	Leu	Leu	Glu	Пe	Leu	Gly	Thr
465					470					475					480
He	Tyr	His	His	Met	Pro	Val	Leu	Arg	Gln	Lys	Glu	Glu	Ser	Phe	Gln
				485					490					495	
Phe	He	Leu	Glu	Ala	lle	Ser	Gln	He	Ala	Ser	Phe	His	Met	Asp	Thr
			500					505					510		
Val	Val	Val	Asn	Leu	Leu	Gln	Lys	Pro	Leu	Pro	Phe	Asp	Arg	Asp	Thr
		515					520					525			
Lys	Thr	Leu	Trp	Lys	Ala	Leu	Ala	Glu	Lys	Pro	Ala	Ser	Ser	Gly	Lys
	530					535					540				
Leu	Leu	Gln	Ala	Leu	He	Asp	Lys	Leu	Glu	Thr	Glu	Leu	Glu	Asp	Asp
545					550					555					560
lle	Ala	Arg	Val	Glu	Ala	He	Ser	Val	Ala	Cys	Ala	Met	Tyr	Glu	Val
				565					570					575	
Ile	Ser	Met	Gly	Thr	Ser	Val	Thr	Gly	Leu	Tyr	Pro	Glu	Leu	Phe	Thr
			580					585					590		
Leu	Leu	Leu	Lys	Leu	Val	Ser	Cys	Thr	Leu	Gly	Gln	Lys	Met	Pro	Thr
		595					600					605			
Cys	Pro	Trp	Ser	His	Arg	Arg	His	Val	Met	Gln	Gln	Gly	Glu	Gln	Gln
	610					615					620				
Gln	He	Pro	Asp	Pro	Cys	Arg	Leu	Ser	Thr	Ala	Thr	Leu	Lys	Cys	Leu
625					630					635					640
Gln	Ala	Gln	Ala	Met	Arg	Glu	Gly	Leu	Ala	Lys	Glu	Ser	Asp	Glu	Gly
				645					650					655	
Asp	Asn	Leu	Trp	Thr	Leu	Leu	Ser	Ser	Pro	Ser	Thr	His	His	lle	Gly
			660					665					670		
Val	Cys	Ser	Leu	Ala	Arg	Ser	Met	Ala	Val	Trp	Gln	His	G1 y	Val	He
		675					680					685			
Leu	Asp	lle	Met	Glu	Gln	Leu	Leu	Ser	Ser	Leu	Thr	Ser	Ser	Ser	Glu
	690					695					700				
Asn	Tyr	Arg	lle	Thr	G1 y	Ala	Ala	Phe	Phe	Ser	Glu	Leu	Met	Lys	G]u
705					710					715					720
Pro	He	Leu	Trp	Lys	His	G1y	Asn	Leu	Arg	Asn	Val	Leu	lle	Leu	Met

				725					730					735	
Asp	Gln	Ser	Ala	Trp	Asp	Ser	Asn	Ala	Thr	Leu	Arg	Gln	Met	Ala	He
			740					745					750		
Arg	Gly	Leu	Gly	Asn	Thr	Ala	Ser	Gly	Ala	Pro	His	Lys	Val	Lys	Lys
		755					760					765			
His	Lys	Gln	Leu	Met	Leu	Glu	Ser	Ile	lle	Arg	Gly	Leu	Tyr	His	Leu
	770					775					780				
Ala	Arg	Thr	Glu	Val	Val	Cys	Glu	Ser	Leu	Lys	Ala	Leu	Lys	Lys	He
785			·		790					795					800
Leu	Glu	Leu	Leu	Thr	Asp	Arg	Asp	Val	Ser	Phe	Tyr	Phe	Lys	Glu	He
				805					810					815	
Val	Leu	Gln	Thr	Arg	Thr	Phe	Phe	Glu	Asp	Glu	Gln	Asp	Asp	Val	Arg
			820					825					830		
Leu	Thr	Ala	lle	Phe	Leu	Phe	Glu	Asp	Leu	Ala	Pro	Leu	Thr	Gly	Arg
		835					840					845			
Arg	Trp	Lys	lle	Phe	Phe	Ala	Glu	Glu	lle	Lys	Lys	Ser	Leu	lle	Ser
	850					855					860				
Phe	Leu	Leu	His	Leu	Trp	Asp	Pro	Asn	Pro	Lys	lle	Gly	Val	Ala	Cys
865					870					875					880
Arg	Asp	Val	Leu	Met	Val	Cys	He	Pro	Phe	Leu	Gly	Leu	Gln	Glu	Leu
				885					890					895	
Tyr	Gly	Val	Leu	Asp	Arg	Leu	Leu	Asp	Gln	Asp	Leu	Pro	Arg	Ala	Arg
			900					905					910		
Asp	Phe	Tyr	Arg	Gln	Phe	Cys	Val	Lys	Leu	Ala	Glu	Lys	Asn	Gln	Glu
		915					920					925			
He	Leu	Trp	lle	Leu	His	Thr	His	Ser	Phe	Thr	Phe	Phe	Thr	Ser	Thr
	930					935					940				
Trp	Glu	Val	lle	Arg	Ser	Ala	Ala	Val	Lys	Leu	Thr	Asp	Ala	Val	Val
945					950					955					960
Leu	Asn	Leu	Thr	Ser	Gln	Tyr	Val	Glu	Leu	Leu	Asp	Arg	Glu	Gln	Leu
				965					970					975	
Thr	Thr	Arg	Leu	Gln	Ala	Leu	Arg	Gln	Asp	Pro	Cys	lle	Ser	Val	Gln
			980					985					990		
Arg	Ala	Ala	Glu	Ala	Ala	Leu	Gln	Thr	Leu	Leu	Arg	Arg	Cys	Lys	Glu
		995				•	1000					1005			
Thr	Ser	He	Pro	Leu											

⟨210⟩ 3881

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3881

Met Ile Thr Glu Ile Arg Arg Gly Ser Lys Asp Pro Leu Val Lys

1 5 10 15

Ala Leu Gln Leu Leu Asp Ser Pro Cys Glu Pro Ala Asp Gly Gly Leu 20 25 30

Lys Ser Glu Thr Leu Ala Lys Arg Arg Ser Ser Lys Asp Leu Leu Gly 35 40 45

Lys Pro Pro Gln Leu Tyr Asp Thr Pro Tyr Glu Pro Ala Glu Gly Gly
50 55 60

Pro Arg Ala Glu Gly Lys Ala Arg Pro Pro Asp Ser Arg Leu Pro Glu
65 70 75 80

Asn Asp Glu Arg Pro Ala Ala Glu Tyr Glu Gln Pro Trp Glu Trp Lys 85 90 95

Lys Glu Gln lle Val Arg Ala Leu Ser Val 100 105

⟨210⟩ 3882

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3882

Met Leu Thr Thr Ser Gly Gly Gly Thr Gly Pro Leu Glu Gly Leu Gln
1 5 10 15

Glu Glu Ala Ser 11e Ser Leu 11e Thr Ala Leu Thr Val Ser Leu Lys 20 25 30

Thr Thr Arg Pro Cys Cys Leu Phe Ile Gly Arg Val Ser Pro Ala Phe

		35					40					45			
Asp	Gln	Leu	Leu	Trp	Asn	lle	Ser	Thr	Leu	Pro	Cys	Arg	Leu	Pro	Cys
	50					55					60				
Asp	Ser	Trp	Lys	Ser	Arg	Ser	Phe	Val	Ala	Trp	Arg	Gly	Cys	Lys	Pro
65					70					75					80
Arg	Ala	Ala	Ala	Pro	Asp	Ala	Phe	Ser	Glu	Gln	He	Pro	Gln	Arg	Gly
				85					90					95	
Cys	Leu	Thr	Ser	Glu	Met	Asn	Phe	Ser	Gln	Cys	Leu	Arg	Arg	Gly	Arg
			100					105					110		
Cys	Arg	Asn	Leu	Thr	Pro	Leu	Ser	Asn	Pro	Glu	Gln	Ser	Thr	Gln	Pro
		115					120					125			
Leu															
<210	)> 38	383													
	1> 1:														
	2> PI														
	3> Ho		sapi	ens											
<400	)> 38	883													
Met	His	Thr	Lys	Thr	Asp	Gln	Ala	Ala	Thr	Pro	Asn	Arg	Arg	G1n	Met
1				5					10					15	
Thr	He	Leu	Leu	Leu	Leu	Thr	Пе	Arg	Ser	Ser	Thr	Leu	Leu	His	Phe
			20					25					30		
Gly	Lys	Trp	Asn	Lys	Cys	Ser	Gly	Glu	Asp	Arg	Glu	His	Arg	Thr	Tyr
		35					40					45			
Leu	Pro	Gly	Gly	Asp	He	Lys	Glu	Gln	Pro	Gln	Asp	Leu	Gln	Asn	Lys
	50					55					60				
Val	Val	Pro	Met	Asn	Tyr	Leu	Cys	Leu	Gln	Pro	His	Leu	Ala	Pro	Ser
65					70					75					80
Ala	Lys	Pro	Ala	Ser	Asp	Lys	Gln	Leu	Phe	Pro	Arg	Gln	Pro	Pro	Leu
	•			85					90					95	
Pro	Ser	He	Leu	Gly	Thr	His	Pro	Glu	Asn	Ser	Pro	Thr	Cys	Ser	Thr
			100					105					110		

Thr Thr Lys Leu Phe

<210> 3884 <211> 108 <212> PRT

<213> Homo sapiens

<400> 3884

Met Gln Thr Ser Tyr Met Tyr Asn Leu Ile Ser Phe Asp Lys Ile Ile
1 5 10 15

His Leu Cys Asn His His Leu Ser Gln Asp Leu Glu His Phe His His 20 25 30

Pro Glu Ser Pro Leu IIe IIe Ser Phe Gln Gln IIe Leu Thr Ser Gln 35 40 45

Arg Gln Pro Val Thr lle Asp Tyr Phe Thr Cys Ser Tyr Thr Ser Tyr 50 55 60

Val Leu Phe Cys Phe Leu Phe Lys Leu Asn Leu Thr Phe Ser Ile Leu 65 70 75 80

lle Tyr Phe Ala Val Cys lle Ser Ser Leu Lys Lys Phe Leu Gly
85 90 95

Cys Phe Pro Leu Tyr Glu Tyr Pro Thr Ile Asp Ile 100 105

<210> 3885

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3885

Met Phe Asp Met Gly Phe Glu Pro Gln Val Met Arg Ile Val Asp Asn
1 5 10 15

Val Arg Pro Asp Arg Gln Thr Val Met Phe Ser Ala Thr Phe Pro Arg
20 25 30

Ala Met Glu Ala Leu Ala Arg Arg Ile Leu Ser Lys Pro Ile Glu Val

		35					40					45			
Gln	Val	Gly	Gly	Arg	Ser	Val	Val	Cys	Ser	Asp	Val	Glu	Gln	Gln	Val
	50					55					60				
He	Val	He	Glu	Glu	Glu	Lys	Lys	Phe	Leu	Lys	Leu	Leu	Glu	Leu	Leu
65					70					75					80
Gly	His	Tyr	Gln	Glu	Ser	Gly	Ser	Val	Пe	lle	Phe	Val	Asp	Lys	Gln
				85					90					95	
Glu	His	Ala	Asp	Gly	Leu	Leu	Lys	Asp	Leu	Met	Arg	Ala	Ser	Tyr	Pro
			100					105					110		
Cys	Met	Ser	Leu	His	Gly	Gly	lle	Asp	Gln	Tyr	Asp	Arg	Asp	Ser	Ile
		115					120					125			
He	Asn	Asp	Phe	Lys	Asn	Gly	Thr	Cys	Lys	Leu	Leu	Val	Ala	Thr	Ser
	130					135					140				
Val	Ala	Ala	Arg	Gly	Leu	Лsp	Val	Lys	His	Leu	He	Leu	Val	Val	Asn
145					150					155					160
Tyr	Ser	Cys	Pro	Asn	His	Tyr	Glu	Asp	Tyr	Val	His	Arg	Ala	G1 y	Arg
				165					170					175	
Thr	Gly	Arg	Ala	Gly	Asn	Lys	Gly	Tyr	Ala	Tyr	Thr	Phe	Ile	Thr	Glu
			180					185					190		
Asp	Gln	Ala	Arg	Tyr	Ala	Gly	Asp	Пe	lle	Lys	Ala	Leu	Glu	Leu	Ser
		195					200					205			
Gly	Thr	Ala	Va]	Pro	Pro	Asp	Leu	Glu	Lys	Leu	Trp	Ser	Asp	Phe	Lys
	210					215					220				
Asp	Gln	Gln	Lys	Ala	Glu	Gly	Lys	He	lle	Lys	Lys	Ser	Ser	Gly	Phe
225					230					235					240
Ser	Gly	Lys	Gly	Phe	Lys	Phe	Asp	G] u			Gln	Ala	Leu	Ala	Asn
				245			•		250					255	
Glu	Arg	Lys		Leu	Gln	Lys	Ala		Leu	Gly	Leu	Gln		Ser	Asp
			260					265					270		
Asp	Glu		Ala	Ala	Val	Asp		Asp	Glu	Gln	He		Ser	Met	Phe
		275	,				280					285	m.		
Asn		Lys	Lys	Arg	Val	Lys	Asp	Met	Ala	Ala		Gly	Ihr	Ser	Ser
	290			<b></b>		295			6.1		300	0.1			
	Pro	Ala	Pro	Inr		G1 y	Asn	Ala	Glu		Leu	61u	116	Ala	
305	,	A 3	,	Δ.	310	Δ.	A 7	C 1		315	1	C1	7 7	C1	320
Arg	Leu	Ala	Leu	Arg	He	Asn	Ala	GIn	Lys	Asn	Leu	ыy	11e	Glu	5er

				325					330					335	
Gln	Val	Asp	Val	Met	Gln	Gln	Ala	Thr	Asn	Ala	lle	Leu	Arg	Gly	G1 y
			340					345					350		
Thr	He	Leu	Ala	Pro	Thr	Val	Ser	Ala	Lys	Thr	He	Ala	Glu	Gln	Leu
		355					360					365			
Ala	Glu	Lys	He	Asn	Ala	Lys	Leu	Asn	Tyr	Val	Pro	Leu	Glu	Lys	G1n
	370					375					380				
Glu	Glu	Glu	Arg	Gln	Asp	Gly	Gly	Gln	Asn	Glu	Ser	Phe	Lys	Arg	Tyr
385					390					395					400
Glu	Glu	Glu	Leu	Glu	He	Asn	Asp	Phe	Pro	Gln	Thr	Ala	Arg	Trp	Lys
				405					410					415	
Val	Thr	Ser	Lys	Glu	Ala	Leu	Gln	Arg	He	Ser	Glu	Tyr	Ser	Glu	Ala
			420					425					430		
Ala	He	Thr	11e	Arg	Gly	Thr	Tyr	Phe	Pro	Pro	Gly	Lys	Glu	Pro	Lys
		435					440					445			
Glu	Gly	Glu	Arg	Lys	He	Tyr	Leu	Ala	11e	Glu	Ser	Ala	Asn	Glu	Leu
	450					455					460				
Ala	Val	Gln	Lys	Ala	Lys	Ala	Glu	Ile	Thr	Arg	Leu	He	Lys	Glu	Glu
465					470					475					480
Leu	He	Arg	Leu	Gln	Asn	Ser	Tyr	Gln	Pro	Thr	Asn	Lys	Gly	Arg	Tyr
				485					490					495	
Lys	Val	Leu													

<211> 671

<212> PRT

<213> Homo sapiens

<400> 3886

Met Asn Glu Tyr Leu Ser Ser Phe Lys Val Ala Gln Tyr Val Val Arg 1 5 5 10 15 15 Glu Glu Asp Gly Val Glu Glu Val Glu Arg Glu Ile Ile Lys Gln Glu Glu Asn Val Asp Pro Asp Tyr Trp Glu Lys Leu Leu Arg His His Tyr

		35					40					45			
Glu	Gln	Gln	Gln	Glu	Asp	Leu	Ala	Arg	Asn	Leu	Gly	Lys	Gly	Lys	Arg
	50					55					60				
He	Arg	Lys	Gln	Val	Asn	Tyr	Asn	Asp	Ala	Ser	Gln	Glu	Asp	Gln	Glu
65					70					75					80
Trp	Gln	Asp	Glu	Leu	Ser	Asp	Asn	Gln	Ser	Glu	Tyr	Ser	He	Gly	Ser
				85					90					95	
Glu	Asp	Glu	Asp	Glu	Asp	Phe	Glu	Glu	Arg	Pro	Glu	Gly	Gln	Ser	Gly
			100					105					110		
Arg	Arg	Gln	Ser	Arg	Arg	Gln	Leu	Lys	Ser	Asp	Arg	Asp	Lys	Pro	Leu
		115					120					125			
Pro	Pro	Leu	Leu	Ala	Arg	Val	Gly	Gl y	Asn	He	Glu	Val	Leu	Gly	Phe
	130					135					140				
Asn	Ala	Arg	Gln	Arg	Lys	Ala	Phe	Leu	Asn	Ala	He	Met	Arg	Trp	Gly
145					150					155					160
Met	Pro	Pro	Gln	Asp	Ala	Phe	Asn	Ser	His	Trp	Leu	Val	Arg	Asp	Leu
				165					170					175	
Arg	Gly	Lys	Ser	Glu	Lys	Glu	Phe	Arg	Ala	Tyr	Val	Ser	Leu	Phe	Met
			180					185					190		
Arg	His	Leu	Cys	Glu	Pro	Gly	Ala	Asp	Gly	Ala	Glu	Thr	Phe	Ala	Asp
		195					200					205			
Gly	Val	Pro	Arg	Glu	G1 y	Leu	Ser	Arg	Gln	His	Val	Leu	Thr	Arg	He
	210					215					220				
Gly	Va]	Met	Ser	Leu	Val	Arg	Lys	Lys	Val	Gln	Glu	Phe	Glu	His	Val
225					230					235					240
Asn	Gly	Lys	Tyr	Ser	Thr	Pro	Asp	Leu	He	Pro	Glu	Gly	Pro	Glu	Gly
				245					250					255	
Lys	Lys	Pro		Glu	Val	He	Ser		Asp	Pro	Asn	Thr	Pro	Val	Pro
			260					265					270		
Ala	Ser		Ala	His	Leu	Leu		Ala	Pro	Leu	Gly		Pro	Λsp	Lys
		275					280					285			
Met		Ala	Gln	Leu	G1 y	Tyr	Met	Asp	Glu	Lys	Asp	Pro	Gly	Ala	GIn
	290					295					300				
Lys	Pro	Arg	G1n	Pro	Leu	Glu	Va]	G1n	Ala	Leu	Pro	Ala	Ala	Leu	Asp
305					310					315					320
Arg	Val	G1n	Ser	G1n	Aen	lvs	Hie	Gln	Sor	Pro	Ala	Sor	lve	G1n	Aro

*				325					330					335	
Ala	Arg	Glu	Glu	Arg	Pro	Glu	Glu	Thr	Glu	Lys	Ala	Pro	Pro	Ser	Pro
			340					345					350		
Glu	Gln	Leu	Pro	Arg	Glu	Glu	Val	Leu	Pro	Glu	Lys	Glu	Lys	He	Leu
		355					360					365			
Asp	Lys	Leu	Glu	Leu	Ser	Leu	lle	His	Ser	Arg	Gly	Asp	Ser	Ser	Glu
	370					375					380				
Leu	Arg	Pro	Asp	Asp	Thr	Lys	Ala	Glu	Glu	Lys	Glu	Pro	He	Glu	Thr
385					390					395					400
Gln	Gln	Asn	Gly	Asp	Lys	Glu	Glu	Asp	Asp	Glu	Gly	Lys	Lys	Glu	Asp
				405					410					415	
Lys	Lys	Gly	Lys	Phe	Lys	Phe	Met	Phe	Asn	He	Ala	Asp	Gly	Gly	Phe
			420					425					430		
Thr	Glu		His	Thr	Leu	Trp		Asn	Glu	Glu	Arg	Ala	Ala	Val	Ser
		435		_			440					445	_		
Ser		Lys	lle	Tyr	Asp		Trp	His	Arg	Arg		Asp	Tyr	Trp	Leu
	450					455		-			460				
	Ala	G1y	He	Val		His	Gly	Tyr	Ala		Trp	Gln	Asp	He	
465		D		Tr	470	7.1			C1	475	DI	,	C	C1	480
Asn	Asp	Pro	Arg		Met	11e	Leu	Asn		Pro	Phe	Lys	Ser	Glu	val
ш.	1	C1	Λ	485	Lan	C1	M = 4	1	490	1	DI	1	A 1	495	Α
ms	Lys	GIY		Tyr	Leu	GIU	мет		ASII	Lys	rne	Leu		Arg	Arg
Pho	Lve	Lou	500	Glu	Cln	Ala	Lou	505 Val	110	Clu	Clu	Gla	510	Arg	Arro
1 110	Lys	515	Leu	Olu	OIII	піа	520	vai	116	oru	oru	525	Leu	Mg	AIG
Ala	Ala		Leu	Asn	Met	Thr		Asp	Pro	Asn	His		Ala	Met	Ala
7110	530	.,1	200	71011		535	0111	пор			540			.,,,,,	
Leu		Ala	Arg	Leu	Ala		Val	Glu	Cvs	Leu		Glu	Ser	His	Gln
545			0		550				- ,	555					560
	Leu	Ser	Lys	Glu		Leu	Ala	Gly	Asn		Pro	Ala	Asn	Ala	Val
				565					570					575	
Leu	His	Lys	Val	Leu	Asn	Gln	Leu	Glu	Glu	Leu	Leu	Ser	Asp	Met	Lys
			580					585					590		
Ala	Asp	Val	Thr	Arg	Leu	Pro	Ser	Met	Leu	Ser	Arg	He	Pro	Pro	Val
		595					600					605			

Ala Ala Arg Leu Gln Met Ser Glu Arg Ser Ile Leu Ser Arg Leu Thr Asn Arg Ala Gly Asp Pro Thr Ile Gln Gln Ile Ser Ser Arg Pro Arg Asp Phe Pro Val Leu Gln Arg Ser Phe Pro Ala Glu Pro Arg Leu Pro Gly His Leu Pro Asp Pro His Gly Arg Glu Lys Leu Pro Pro Phe 

<210> 3887

<211> 794

<212> PRT

<213> Homo sapiens

<400> 3887

Met Gly Arg Lys Leu Asp Leu Ser Gly Leu Thr Asp Asp Glu Thr Glu His Val Leu Gln Val Val Gln Arg Asp Phe Asn Leu Arg Lys Lys Glu Glu Glu Arg Leu Ser Glu Leu Lys Gln Lys Leu Asp Glu Glu Gly Ser Lys Cys Ser Ile Leu Ser Lys His Gln Gln Phe Val Glu His Cys Cys Met Arg Cys Cys Ser Pro Phe Thr Phe Leu Val Asn Thr Lys Arg Gln Cys Gly Asp Cys Lys Phe Asn Val Cys Lys Ser Cys Cys Ser Tyr Gln Lys His Glu Lys Ala Trp Val Cys Cys Val Cys Gln Gln Ala Arg Leu Leu Arg Ala Gln Ser Leu Glu Trp Phe Tyr Asn Asn Val Lys Ser Arg Phe Lys Arg Phe Gly Ser Ala Lys Val Leu Lys Asn Leu Tyr Arg Lys

His Arg Leu Glu Ser Gly Ala Cys Phe Asp Ile Leu Gly Gly Ser Leu

Phe	Glu	Ser	Asn		Glu	Asn	Glu	Gly		He	Ser	Gly	Ser		Ser
				165					170					175	
Thr	Phe	Tyr	Arg	Gln	Ser	Glu	Gly	His	Ser	Val	Met	Asp	Thr	Leu	Ala
			180					185					190		
Val	Ala	Leu	Arg	Val	Ala	Glu	Glu	Ala	lle	Glu	Glu	Ala	He	Ser	Lys
		195					200					205			
Ala	Glu	Ala	Tyr	Gly	Asp	Ser	Leu	Asp	Lys	Gln	Asn	Glu	Ala	Ser	Tyr
	210					215					220				
Leu	Arg	Asp	His	Lys	Glu	Glu	Leu	Thr	Glu	Glu	Leu	Ala	Thr	Thr	Ile
225					230					235					240
Leu	Gln	Lys	Ile	He	Arg	Lys	Gln	Lys	Ser	Lys	Ser	Glu	Gln	Gln	Val
				245					250					255	
Glu	Glu	Glu	Pro	Gly	Trp	Pro	His	Pro	Gln	Ser	Cys	Ser	Thr	Lys	Val
			260					265					270		
Ala	Asp	Glu	Gly	Thr	Ser	Ala	Ser	Pro	Gly	Gly	Tyr	Arg	Ala	Pro	Ala
		275					280					285			
Ala	Leu	Trp	Arg	Ser	Gln	Ser	Ala	Phe	Ser	lle	Thr	Gly	Glu	Glu	Ala
	290					295					300				
Leu	Lys	Thr	Pro	Pro	Val	Glu	Ala	Pro	Ser	Arg	Gln	Pro	Arg	Asp	Gln
305					310					315					320
Gly	Gln	His	Pro	Arg	Ala	Glu	Ser	Ala	Leu	Pro	Ser	Trp	Lys	Ser	Val
				325					330					335	
Asp	Arg	Leu	Asp	Glu	Thr	Asn	Leu	Ala	Pro	Val	Leu	Gln	Ser	Pro	Asp
			340					345					350		
Gly	Asn	Trp	Val	Ala	Leu	Lys	Asp	Gly	Ala	Pro	Pro	Pro	Thr	Arg	Leu
		355					360					365			
Leu	Ala	Lys	Pro	Lys	Ser	Gly	Thr	Phe	Gln	Ala	Leu	Glu	Val	Ala	Ser
	370					375					380				
Ser	Val	Ala	Ser	Ala	Tyr	Asp	Glu	Met	Gly	Ser	Asp	Ser	Glu	Glu	Asp
385					390					395					400
Phe	Asp	Trp	Ser	Glu	Ala	Leu	Ser	Lys	Leu	Cys	Pro	Arg	Ser	Arg	Ala
				405					410					415	
Leu	Pro	Arg	Asn	Pro	Gln	Pro	Gln	Pro	Thr	Gln	Ala	Gln	Ser	Ser	Asp
			420					425					430		
Gln	Gly	Pro	lle	Ala	Ala	Ser	Pro	Ser	Ser	Ala	Leu	Ser	Pro	Asn	Pro
		435					440					445			

Glu	Ala	Met	Cys	Ser	Asp	Ser	Glu	Thr	Ser	Ser	Ala	Gly	Ser	Ser	Arg
	450					455					460				
Glu	Val	Gly	His	Gln	Ala	Arg	Leu	Ser	Trp	Leu	Gln	Arg	Lys	Ala	Pro
465					470					475					480
Arg	Asn	Pro	Ala	Ala	Glu	Lys	Met	Arg	Leu	His	Gly	Glu	Leu	Asp	Val
				485					490					495	
Asn	Phe	Asn	Pro	Gln	Leu	Ala	Ser	Arg	Glu	Thr	Ser	Asp	Ser	Ser	Glu
			500					505					510		
Pro	Glu	Glu	Ala	Pro	His	Thr	Thr	Asp	Arg	Arg	Ala	Arg	Arg	Trp	Arg
		515					520					525			
G1 y	Ala	Arg	Leu	Gly	Ser	Glu	Gly	Pro	Ser	Lys	Glu	Pro	Ser	Ser	Pro
	530					535					540				
Ser	Ala	Gln	Leu	Arg	Asp	Leu	Asp	Thr	His	Gln	Val	Ser	Asp	Asp	Leu
545					550					555					560
Ser	Glu	Thr	Asp	lle	Ser	Asn	Glu	Ala	Arg	Asp	Pro	Gln	Thr	Leu	Thr
				565					570					575	
Asp	Thr	Thr	Glu	Glu	Lys	Arg	Arg	Asn	Arg	Leu	Tyr	Glu	Leu	Ala	Met
			580					585					590		
Lys	Met	Ser	Glu	Lys	Glu	Thr	Ser	Ser	Gly	Glu	Asp	Gln	Glu	Ser	Glu
		595					600					605			
Pro		Thr	Glu	Ser	Glu		Gln	Lys	Glu	Ser		Ser	Ser	Glu	Asp
	610					615					620				
	Ser	Gln	Ser	Val		Glu	Glu	Leu	Lys		Val	Tyr	Leu	Ala	
625					630					635					640
Gly	Thr	Val	Tyr		Leu	Glu	Thr	Gln		Thr	Glu	Leu	Glu	Asp	Ala
		_		645	_				650			_		655	
Ala	Arg	Cys		His	Ser	G1y	Thr		Glu	Thr	His	Leu		Asp	Leu
			660					665					670	~ 1	
Glu	Asp		Val	Ala	Thr	Ala		Ala	GIn	Val	His		Ala	Glu	Leu
C1		675		7.1	6.1		680	7.7	C		,	685	7.1		6.1
GIn		Ser	Asp	He	Glu		Arg	He	Ser	Ala		Thr	He	Ala	GIy
,	690	7.1	4.7	Б	0	695		DI	TI		700			6.1	
	Asn	11e	Ala	rro		val	Arg	rne	Inr		Arg	Arg	Asp	Gln	
705	Λ +	т1	C1	Vel	710	Tl	T 7 _	Λ	TI	715	A	C1	C1	Λ	720
oin	лгg	ınr	oin		oin	ınr	116	ASP		ser	aгg	GIN	om	Arg	лгg
				725					730					735	

Lys Leu Pro Ala Pro Pro Val Lys Ala Glu Lys Ile Glu Thr Ser Ser Val Thr Thr Ile Lys Thr Phe Asn His Asn Phe Ile Leu Gln Gly Ser Ser Thr Asn Arg Thr Lys Glu Arg Lys Gly Thr Thr Lys Asp Leu Met Glu Pro Ala Leu Glu Ser Ala Val Met Tyr 

<210> 3888

<211> 1233

<212> PRT

<213> Homo sapiens

<400> 3888

Met Gly Thr Arg Ala Phe Ser His Asp Ser Ile Phe Ile Pro Asp Gly Gly Ala Glu Ser Glu Gln Thr Val Gln Ala Met Ser Gln Asp Asn Ile Leu Gly Lys Val Lys Thr Leu Gln Gln Gln Leu Gly Lys Asn Ile Lys Phe Gly Gln Arg Ser Pro Asn Ala Ile Pro Met Asn Lys Ala Asn Ser Gly Glu Ala Ser Leu Glu Glu Asp Leu Phe Leu Thr Ser Pro Met Glu Ile Val Thr Gln Gln Asp Ile Val Leu Ser Asp Ala Glu Asn Lys Ser Ser Asp Thr Pro Ser Ser Leu Ser Pro Leu Asn Leu Pro Gly Ala Gly Ser Glu Met Glu Glu Lys Val Ala Pro Val Lys Pro Ser Arg Pro Lys

Arg His Phe Ser Ser Ala Gly Thr lle Glu Ser Val Asn Leu Asp Ala 

Ile Pro Leu Ala Ile Ala Arg Leu Asp Asn Ser Ala Ala Lys His Lys 

Leu	Ala	Val	Lys	Pro	Lys	Lys	Gln	Arg	Val	Ser	Lys	Lys	His	Arg	Arg
				165					170					175	
Leu	Ala	G1n	Asp	Pro	Gln	His	Glu	Gln	Gly	Gly	Leu	Glu	Ser	Arg	Pro
			180					185					190		
Cys	Leu	Asp	Gln	Asn	Gly	His	Pro	Gly	Glu	Asp	Lys	Pro	Thr	Trp	His
		195					200					205			
Glu	Glu	Glu	Pro	Asn	Pro	Leu	Asp	Ser	Glu	Glu	Glu	Arg	Arg	Arg	Gln
	210					215					220				
Glu	Asp	Tyr	Trp	Arg	Glu	Leu	Glu	Ala	Lys	Cys	Lys	Arg	Gln	Lys	Ala
225					230					235					240
Glu	Ala	Ala	Glu	Lys	Arg	Arg	Leu	Glu	Glu	Gln	Arg	Leu	Gln	Ala	Leu
				245					250					255	
Glu	Arg	Arg	Leu	Trp	Glu	Glu	Asn	Arg	Arg	Gln	Glu	Leu	Leu	Glu	Glu
			260					265					270		
Glu	Gly	Glu	Gly	Gln	Glu	Pro	Pro	Leu	Glu	Ala	Glu	Arg	Ala	Pro	Arg
		275					280					285			
Glu	Glu	Gln	Gln	Arg	Ser	Leu	Glu	Ala	Pro	Arg	Trp	Glu	Asp	Ala	Glu
	290					295					300				
Arg	Arg	Glu	Arg	Glu	Glu	Arg	Glu	Arg	Leu	Glu	Ala	Glu	Glu	Glu	Arg
305					310					315					320
Arg	Arg	Leu	Gln	Ala	Gln	Ala	Gln	Ala	Glu	Glu	Arg	Arg	Arg	Leu	Glu
				325					330					335	
Glu	Asp	Ala	Arg	Leu	Glu	Glu	Arg	Arg	Arg	Gln	Glu	Glu	Glu	Glu	61 y
			340					345					350		
Arg	Cys	Ala	Glu	Glu	Leu	Lys	Arg	Gln	Glu	Glu	Glu	Glu	Ala	Glu	Gly
		355					360					365			
Trp		Glu	Leu	Glu	Gln	Gln	Glu	Ala	Glu	Val		Gly	Pro	Pro	Glu
	370					375					380				
	Leu	Glu	Glu	Thr		Glu	Gly	Arg	Arg		Ala	Glu	Glu	Glu	
385					390					395					400
Leu	Gly	Glu	Glu		Glu	Glu	Gly	G1n		His	Leu	Glu	Asp		Arg
				405					410					415	
Gly	Gln	Leu		Glu	Leu	Leu	Asn		Phe	Glu	Glu	Arg		Glu	Asp
			420	_	_			425				_	430		
Gln	Glu	-	Leu	Lys	Pro	Glu		Gln	Arg	Glu	His		Glu	Glu	Pro
٠		435					440					445			

Gly	Ile 450	Cys	Glu	Glu	Gln	Asn 455	Pro	Glu	Ala	Glu	Arg 460	Arg	Arg	Glu	Gln
Gln		Aro	Ser	G1v	Asn	Phe	Gln	Glv	Ala	Asn		Pro	Glv	Pro	Glu
465	019	8	501	013	470	1110	0111	01)		475	6	•••	<b>01</b> )		480
	Lvs	Arø	Glu	Glu		Asp	Thr	Glu	Pro		Leu	Lvs	Gln	Glu	
014	2,0		010	485	~ <i>z</i> ,	۳			490			-,-		495	,
Pro	Val	Glu	Ala		G1n	Pro	Pro	Val		Arg	Lvs	Glu	Ala		Ala
			500					505		Ū	,		510		
Leu	Glu	G1n	Gly	Arg	Lys	Val	Glu	Glu	Leu	Arg	Trp	Gln	Glu	Val	Asp
		515					520					525			
Glu	Arg	G1n	Thr	Met	Pro	Arg	Pro	Tyr	Thr	Phe	Gln	Val	Ser	Ser	G1 y
	530					535					540				
Gly	Lys	Gln	He	Leu	Phe	Pro	Lys	Val	Asn	Leu	Ser	Pro	Val	Thr	Pro
545					550					555					560
Ala	Lys	Asp	Thr	Gly	Leu	Thr	Ala	Ala	Pro	Gln	Glu	Pro	Lys	Ala	Pro
				565					570					575	
Lys	Ala	Ser	Pro	Val	Gln	His	Ala	Leu	Pro	Ser	Ser	Leu	Ser	Val	Pro
			580					585					590		
His	Thr	Ala	He	Leu	Val	Thr	Gly	Ala	Gln	Leu	Cys	Gly	Pro	Ala	Val
		595					600					605			
Asn	Leu	Ser	Gln	He	Lys	Asp	Thr	Ala	Cys	Lys	Ser	Leu	Leu	Gly	Leu
	610					615					620				
G1u	Glu	Lys	Lys	His		Glu	Ala	Pro	Ala		Glu	Asn	Pro	Pro	
625					630					635					640
Gly	Pro	Gly	Asp		Arg	Ala	Gly	Ser		Lys	Ala	Lys	Leu		GIn
			~	645		0			650	0.1	m			655	
Glu	Ser	Pro		Ser	Ala	Ser	Ala		Ala	Glu	Irp	Ala		He	Arg
c			660	,		4.1	C1	665		D	Α.	C	670	C1	Δ
Ser	Arg		Leu	Lys	Asn	Ala		Ser	Asp	Pro	Arg		ser	GIU	Arg
Aan	Cln	675	Ara	Dro	Clv	Asp	680	Sor	Thr	Dro	Ana	685	Ara	Cve	Acn
ASP	690	Leu	AIg	110	оту	695	Gju	261	1111	110	700	ОТУ	AI g	Cys	ASP
Sor		Glv	Aen	Gln	Ara	Lys	Thr	Pro	Pro	Val		Ala	lve	Phe	Ser
705	шg	Ory	11311	OTH	710	ьуэ	1 1 1 1	110	110	715	11311	711 CI	цуз	1110	720
	Met	Pro	Ala	Tro		Lys	Phe	Ser	Asn		Glv	Thr	Glu	Thr	
				725		, ,			730	- ,	- 3			735	

Lys	Gln	Ser	Thr	Glu	Ala	Glu	Ser	He	Arg	Lys	Arg	Pro	Met	Leu	Gly
			740					745					750		
Pro	Ser	Glu	Glu	Thr	Ala	Pro	Gln	Pro	Pro	Pro	Ala	Gly	Val	Arg	Glu
		755					760					765			
Leu	Gly	Lys	Gly	Pro	Glu	Lys	Leu	Gly	Met	His	Arg	Glu	Pro	Ala	Asp
	770					775					780				
Thr	Thr	Glu	Gly	Cys	Lys	Phe	Ala	Lys	Asp	Leu	Pro	Ser	Phe	Leu	Val
785					790					795					800
Pro	Ser	Leu	Pro	Tyr	Pro	Pro	Gln	Lys	Val	Val	Ala	His	Thr	Glu	Phe
				805					810					815	
Thr	Thr	Ser	Ser	Asp	Ser	Glu	Thr	Ala	Asn	Gly	lle	Ala	Lys	Pro	Asp
			820					825					830		
Pro	Val	Met	Pro	Gly	Gly	Glu	Glu	Lys	Ala	Ser	Pro	Phe	Gly	11e	Lys
		835					840					845			
Leu	Arg	Arg	Thr	Asn	Tyr	Ser	Leu	Arg	Phe	Asn	Cys	Asp	Gln	Gln	Ala
	850					855					860				
Glu	Gln	Lys	Lys	Lys	Lys	Arg	His	Ser	Ser	Thr	Gly	Asp	Ser	Ala	Asp
865					870					875					880
Ala	Gly	Pro	Pro	Ala	Ala	Gly	Ser	Ala	Arg	Gly	Glu	Lys	Glu	Met	Glu
				885					890					895	
Gly	Val	Ala	Leu	Lys	His	Gly	Pro	Ser	Leu	Pro	Gln	Glu	Arg	Lys	Gln
			900					905					910		
Ala	Pro	Ser	Thr	Arg	Arg	Asp	Ser	Ala	Glu	Pro	Ser	Ser	Ser	Arg	Ser
		915					920					925			
Val	Pro	Val	Ala	His	Pro	Gly	Pro	Pro	Pro	Ala	Ser	Ser	Gln	Thr	Pro
	930					935					940				
Ala	Pro	Glu	His	Asp	Lys	Ala	Ala	Asn	Lys	Met	Pro	Leu	Ala	Gln	Lys
945					950					955					960
Pro	Ala	Leu	Ala	Pro	Lys	Pro	Thr	Ser	Gln	Thr	Pro	Pro	Ala	Ser	Pro
				965					970					975	
Leu	Ser	Lys	Leu	Ser	Arg	Pro	Tyr	Leu	Val	Glu	Leu	Leu	Ser	Arg	Arg
			980					985					990		
Ala	Gly	Arg	Pro	Λsp	Pro	Glu	Pro	Ser	Glu	Pro	Ser	Lys	Glu	Asp	Gln
		995					1000					1005			
Glu	Ser	Ser	Asp	Arg	Arg	Pro	Pro	Ser	Pro	Pro	Gly	Pro	Glu	G1u	Arg

10	010				]	1015					1020				
Lys (	Gly	Gln	Lys	Arg	Asp	Glu	Glu	Glu	Glu	Ala	Thr	Glu	Arg	Lys	Pro
1025				]	1030					1035				J	040
Ala S	Ser	Pro	Pro	Leu	Pro	Ala	Thr	Gln	Gln	Glu	Lys	Pro	Ser	Gln	Thr
				1045				-	1050					1055	
Pro (	Glu	Ala	Gly	Arg	Lys	Glu	Lys	Pro	Met	Leu	Gln	Ser	Arg	His	Ser
		]	1060				]	1065					1070		
Leu A	Asp	Gly	Ser	Lys	Leu	Thr	Glu	Lys	Val	Glu	Thr	Ala	Gln	Pro	Leu
	J	075					080					1085			
Trp ]	He	Thr	Leu	Ala	Leu	Gln	Lys	Gln	Lys	Gly	Phe	Arg	Glu	Gln	Gln
10	090					1095					1100				
Ala T	Γhr	Arg	Glu	Glu	Arg	Lys	Gln	Ala	Arg	Glu	Ala	Lys	Gln	Ala	Glu
1105					1110					1115				]	1120
Lys I	Leu	Ser	Lys	Glu	Asn	Val	Ser	Val	Ser	Val	Gln	Pro	Gly	Ser	Ser
				1125					1130					1135	
Ser V	Val	Ser	Arg	Ala	Gly	Ser	Leu	His	Lys	Ser	Thr	Ala	Leu	Pro	Glu
			1140					1145					1150		
Glu l	Lys	Arg	Pro	Glu	Thr	Ala	Val	Ser	Arg	Leu	Glu	Arg	Arg	Glu	Gln
	]	1155					1160					1165			
Leu I	Lys	Lys	Ala	Asn	Thr	Leu	Pro	Thr	Ser	Val	Thr	Val	Glu	11e	Ser
1.	170					1175					1180				
Asp S	Ser	Ala	Pro	Pro	Ala	Pro	Leu	Val	Lys	Glu	Val	Thr	Lys	Arg	Phe
1185					1190					1195				ļ	1200
Ser 1	Thr	Pro	Asp	Ala	Ala	Pro	Val	Ser	Thr	Glu	Pro	Ala	Trp	Leu	Ala
				1205					1210					1215	
Leu A	Ala	Lys	Arg	Lys	Ala	Lys	Ala	Trp	Ser	Asp	Cys	Pro	Gln	11e	lle
			1220					1225					1230		
Lys															

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3889 Met Leu Thr Asp Val Cys His Leu Val Thr Ser Phe Gln Val Phe Pro 10 Pro Pro Leu Ser Phe Leu Ser Ser Leu Leu Cys Cys Phe Lys Ile Cys 20 25 30 Met Ser Leu Thr Gly Met Pro Val Thr Ser Ala Asn Phe Val Ser Ser 40 Leu Pro His Glu Met Ile Leu Leu Lys Gly Thr Arg Tyr Val Ser Ile 50 55 60 Cys Thr Ser Leu Lys Ala Ser Gly Tyr Gly Pro Leu Thr His Trp Ser 65 70 75 Trp Leu Gln Asn Asn Ser Ala Glu Thr Ser Phe Gln Leu Lys Ile Pro 85 90 Ser Asn Val Thr Gln Gly Arg Asn Ile Ala Pro Ile Ile Lys Gly Gly 100 105 110 Asn Gly Gln Arg Gly Ser Ala Ala Gly Ser Gln Lys Arg Lys Val Arg 120 125 Val Leu Phe Ile Cys 130

<210> 3890

<211> 172

<212> PRT

<213> Homo sapiens

<400> 3890

Met Gln Leu His Asp Arg Gly Leu Arg His Leu Phe Ser Ala Pro Ala 1 5 10 15

Gly Ser Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 20 25 30

Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 35 40 45

Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 50 55 60

Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Met

70 75 65 Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln 11e 85 90 Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 105 110 Asn His Trp Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln 11e 120 Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 135 140 Asn His Trp Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Ile 150 155 160 Asn Cys Arg Cys Asn Ser Ser Ala Gly Gly Arg Arg 165 170

<210> 3891

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3891

Met Ala Phe Ser Ser Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro

1 5 10 15

Phe Ser Gly Thr 11e Gln Gly Gly Leu Gln Asp Gly Leu Gln 11e Thr
20 25 30

Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn 35 40 45

Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro 50 55 60

Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65 70 75 80

Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
85 90 95

Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val 100 105 110

Met Val Asn Gly 11e Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe

		115					120					125			
His	Arg	Val	Asp	Thr	Пе	Ser	Val	Asn	Gly	Ser	Val	Gln	Leu	Ser	Tyr
	130					135					140				
He	Ser	Phe	Gln	Pro	Pro	Gly	Val	Trp	Pro	Ala	Asn	Pro	Λla	Pro	Пe
145					150					155					160
Thr	Gln	Thr	Val	Пе	His	Thr	Val	Gln	Ser	Ala	Pro	G1 y	Gln	Met	Phe
				165					170					175	
Ser	Thr	Pro	Ala	11e	Pro	Pro	Met	Met	Tyr	Pro	His	Pro	Ala	Tyr	Pro
			180					185					190		
Met	Pro	Phe	Ile	Thr	Thr	He	Leu	Gly	Gly	Leu	Tyr	Pro	Ser	Lys	Ser
		195					200					205			
He	Leu	Leu	Ser	Gly	Thr	Val	Leu	Pro	Ser	Ala	Gln	Arg	Phe	His	He
	210					215					220				
Asn	Leu	Cys	Ser	Gly	Asn	His	He	Ala	Phe	His	Leu	Asn	Pro	Arg	Phe
225					230					235					240
Asp	Glu	Asn	Ala	Val	Val	Arg	Asn	Thr	Gln	lle	Asp	Asn	Ser	Trp	Gly
				245					250					255	
Ser	Glu	Glu	Arg	Ser	Leu	Pro	Arg	Lys	Met	Pro	Phe	Val	Arg	Gly	Gln
			260					265					270		
Ser	Phe	Ser	Val	Trp	lle	Leu	Cys	Glu	Ala	His	Cys	Leu	Lys	Val	Ala
		275					280					285			
Val	Asp	Gly	Gln	His	Leu	Phe	Glu	Tyr	Tyr	His	Arg	Leu	Arg	Asn	Leu
	290					295					300				
	Thr	He	Asn	Arg		Glu	Val	Gly	Gly		He	Gln	Leu	Thr	
305					310					315					320
Val	Gln	Thr													

<211> 209

<212> PRT

<213> Homo sapiens

<400> 3892

Met Pro Ser Met Leu Val Val Asn Val His Leu Ala Pro Gly Arg Ala

1				5					10					15	
Asn	Pro	His	Gly	Val	Cys	Val	Asn	Thr	Ser	Leu	Asn	His	Ser	Leu	He
			20					25					30		
Tyr	Pro	He	Phe	Va]	Val	His	Val	Ser	Arg	lle	Gln	Cys	Leu	Cys	Ser
		35					40					45			
Arg	He	Trp	Phe	Ser	Leu	His	Val	Phe	Gly	Val	Cys	Ala	Tyr	Arg	Cys
	50					55					60				
Ala	Trp	Cys	Gly	Leu	Ser	Pro	Arg	Pro	Val	Cys	Lys	Arg	His	Pro	Thr
65					70					75					80
Gln	Arg	Pro	Arg	Gln	Asp	Pro	Gly	Leu	Trp	Ala	Val	Val	Pro	Gly	Leu
				85					90					95	
Pro	Leu	Gln	Gly	Arg	Cys	Val	Leu	Leu	Arg	Glu	His	Pro	Cys	Leu	Gly
			100					105					110		
Ser	Asn	Pro	Gly	Ser	Gly	Arg	Gln	Val	Val	Gl y	Val	Ala	Ala	Ser	Ser
		115					120					125			
Ala	Ser	Leu	Asp	Asp	Ala	Gln	Glu	His	Ala	Gln	Ser	Gln	Arg	Ala	Gln
	130					135					140				
Leu	Leu	Gly	Ser	Leu	Thr	Leu	Gly	Trp	Ala	Leu	Gly	Arg	Gln	Pro	Phe
145					150					155					160
Gly	Glu	Cys	Val	Leu	Met	Val	Val	Ser	Gly	Val	Ser	Leu	Thr	Asn	Asn
				165					170					175	
Pro	Pro	Cys	Pro	Leu	Asp	Thr	Gly	Val	Pro	Ser	Ser	Leu	Ala	Val	Phe
			180					185					190		
Leu	He	Arg	Val	Pro	His	Arg	Pro	Thr	Ala	Arg	Cys	Val	Ser	Pro	Asp
		195					200					205			
Leu															

<211> 465

<212> PRT

<213> Homo sapiens

<400> 3893

Met Gly Val Glu Ala Val Met Ala Leu Leu Glu Gly Thr Pro Asp Thr

1				5					10					15	
Pro	Ala	Cys	Val	Val	Ser	Leu	Ser	G1 y	Asn	Gln	Ala	Val	Arg	Leu	Pro
			20					25					30		
Leu	Met	Glu	Cys	Val	Gln	Val	Thr	Lys	Asp	Val	Thr	Lys	Ala	Met	Asp
		35					40					45			
Glu	Lys	Lys	Phe	Asp	Glu	Ala	Leu	Lys	Leu	Arg	Gly	Arg	Ser	Phe	Met
	50					55					60				
Asn	Asn	Trp	Glu	Val	Tyr	Lys	Leu	Leu	Ala	His	Val	Arg	Pro	Pro	Val
65					70					75					80
Ser	Lys	Ser	Gly	Ser	His	Thr	Val	Ala	Val	Met	Asn	Val	Gly	Ala	Pro
				85					90					95	
Ala	Ala	Gly	Met	Asn	Ala	Ala	Val	Arg	Ser	Thr	Val	Arg	lle	Gly	Leu
			100					105					110		
He	Gln	Gly	Asn	Arg	Val	Leu	Va]	Val	His	Asp	Gly	Phe	Glu	Gly	Leu
		115					120					125			
Ala	Lys	Gly	Gln	Ile	Glu	Glu	Ala	Gly	Trp	Ser	Tyr	Val	Gly	Gly	Trp
	130					135					140				
Thr	Asp	Gln	Gly	Gly	Ser	Lys	Leu	Gly	Thr	Lys	Arg	Thr	Leu	Pro	Lys
145					150					155					160
Lys	Ser	Phe	Glu	Gln	lle	Ser	Ala	Asn	Пе	Thr	Lys	Phe	Asn	Ile	Gln
				165					170					175	
Gly	Leu	Val	He	Ile	Gly	Gly	Phe	Glu	Ala	Tyr	Thr	Gly	61 y	Leu	Glu
			180					185					190		
Leu	Met	Glu	G] y	Arg	Lys	Gln	Phe	Asp	Glu	Leu	Cys	He	Pro	Phe	Val
		195					200					205			
Val	lle	Pro	Ala	Thr	Val	Ser	Asn	Asn	Val	Pro	Gly	Ser	Asp	Phe	Ser
	210					215					220				
Val	Gly	Ala	Asp	Thr	Ala	Leu	Asn	Thr	He	Cys	Thr	Thr	Cys	Asp	Arg
225					230					235					240
He	Lys	Gln	Ser	Ala	Ala	Gly	Thr	Lys	Arg	Arg	Val	Phe	He	11e	Glu
				245					250					255	
Thr	Met	Gly	Gly	Tyr	Cys	Gly	Tyr	Leu	Ala	Thr	Met	Ala	Gly	Leu	Ala
			260					265					270		
Ala	Gly	Ala	Asp	Ala	Ala	Tyr	lle	Phe	Glu	Glu	Pro	Phe	Thr	He	Arg
		275					280					285			
Asp	Leu	Gln	Ala	Asn	Val	Glu	His	Leu	Val	Gln	Lys	Met	Lys	Thr	Thr

290	295 .	300
Val Lys Arg Gly Leu Val	Leu Arg Asn Glu Lys	Cys Asn Glu Asn Tyr
305 310	315	320
Thr Thr Asp Phe Ile Phe	Asn Leu Tyr Ser Glu	Glu Gly Lys Gly Ile
325	330	335
Phe Asp Ser Arg Lys Asn	Val Leu Gly His Met	Gln Gln Gly Gly Ser
340	345	350
Pro Thr Pro Phe Asp Arg	Asn Phe Ala Thr Lys	Met Gly Ala Lys Ala
355	360	365
Met Asn Trp Met Ser Gly	Lys Ile Lys Glu Ser	Tyr Arg Asn Gly Arg
370	375	380
Ile Phe Ala Asn Thr Pro	Asp Ser Gly Cys Val	Leu Gly Met Arg Lys
385 390	395	400
Arg Ala Leu Val Phe Gln	Pro Val Ala Glu Leu	
405	410	415
Phe Glu His Arg Ile Pro		
420	425	430
lle Leu Lys Ile Leu Ala		
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Val		
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Glu Ala Gly Pro Gln Val	His Arg Val Glu Ala	Ala Trp Leu Gln Glu

40 45 Ser Asp Gly Gly Val Arg Pro Leu Arg Leu Ser Gln Pro Ala Cys Trp 55 Pro Cys Leu Pro Arg His Arg Glu Gly Trp Cys Thr Ser Pro Arg Gln 65 70 Asp Cys Glu Pro Glu Arg Gly Gly Met Glu Val Glu Leu Glu Pro Cys 90 Pro His Leu Ser Leu Leu Ile Arg Gly Gly Pro Val Gly Phe Leu Pro 100 105 110 Ala Gly Ser Pro Arg Ala Ala Trp Lys Ala Leu Ile Gly Arg Ala Leu 115 120 125 Val Ala Val Thr Trp Lys Leu Ala Val Leu Gly Arg Gly Ala Phe Cys 135 140 Ser Phe Gln Gly His Ser Val Phe Leu His Ala Asp Pro Leu 145 150 155

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<212> PRT

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Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser 50 55 60

Cys Glu Lys Lys Cys Leu Asp Leu Lys Gln Gly Asn Ile Gln Ser Cys 65 70 75 80

Arg Ile Thr Asn Pro Ser Ser Pro Cys Pro His Leu Leu Pro Ser Trp

85 90 95

Thr Gly Phe Val Pro

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G1 y	Met	His	Ser	Ser	Ala	Ala	Thr	Glu	Leu	Phe	Ala	Thr	Gly	Pro	Leu
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Asp	Pro	Leu	Leu	Gln	He	Lys	Thr	Ser	Gln	Gly	Thr	Val	Pro	Thr	Ala
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Pro	Gln	Ser	Ser	Thr	Tyr	Arg	Ser	Ala	Gln	Glu	Ser	Ala	Pro	His	Leu
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Leu	Gln	Pro	Gln	Phe	Ser	Leu	Leu	Pro	Ser	Ala	Leu	Gly	Gly	Ser	Gln
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Gln	Thr	Pro	Gln	Ala	Tyr	Ser	Ser	Thr	Leu	Phe	Thr	Ser	Ser	Thr	Ala
				165			,		170					175	
Ser	He	Glu	Arg	Ala	Leu	Leu	Arg	Glu	Cys	Ser	Val	11e	Lys	His	His
			180					185					190		
Gln	Arg	Pro	Ser	Gly	Thr	G1n	Ser	11e	Gln	Ala	Gln	Leu	Thr	Gly	Ser
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Ser	Thr	Gln	Asn	Leu	Pro	Asp	Ser	Ser	Pro	Thr	Gln	Asn	Tyr	He	Ser
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Thr	His	Cys	Gln	Thr	Leu	Gln	Asn	Asn	Ile	Thr	Ser	Pro	Asp	Pro	Lys
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Ser	Tyr	Ala	Glu	Arg	Lys	Leu	Asp	Ser	Asp	Val	Tyr	Pro	Ser	Ser	Lys
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Gln	Glu	Asp	Gly	Phe	Pro	Met	Gln	Glu	Leu	Gln	Val	Leu	Gln	Pro	Gln
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Ala	Ser	Leu	Glu	Ser	Ser	Thr	Gln	Arg	Leu	Ser	Asp	Gly	Glu	lle	Asn
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Ala	Gln	Glu	Ser	Thr	Tyr	Lys	Val	Ser	Lys	Ala	Asp	Asp	Arg	Tyr	Ser
		355					360					365			
Gln	Ser	Val	He	Arg	Ser	Asn	Ser	Arg	Leu	Glu	Asp	Gln	Val	lle	Gly
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Thr	Gln	Leu	Asn	Gln	Gln	lle	Gly	Gln	Val	Asn	Asn	Ala	Ala	Thr	Leu
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Asp	Leu	Lys	Asn	Ser	Thr	Asn	Leu	He	Gln	Thr	Pro	Gln	lle	Arg	Leu
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Asn	Thr	Lys	Asp	Leu	Lys	Gln	Gln	His	Pro	Leu	11e	Leu	Lys	Val	His
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Glu	Ser	Lys	Val	Gln	Glu	Gln	His	Asp	Gln	He	He	Asn	Ala	Ser	Ser
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Gln	lle	Gln	He	Pro	Asn	His	Ala	Leu	Gly	His	Gly	His	Gln	Ala	Ser
465					470					475					480
Leu	Pro	Asn	Thr	Gln	Val	Leu	Leu	Asp	Ser	Ala	Cys	Asp	Leu	Gln	lle
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Leu	Gln	Gln	Ser	He	Leu	Gln	Ala	Gly	Leu	Gly	Gln	Val	Lys	Ala	Ser

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Leu	Gln	Met	Glu	Gly	His	Val	He	Gln	Ser	Asn	Gly	Asp	His	Ser	Gln
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Gln	Gln	Leu	His	Pro	Gln	Asn	Ser	Glu	Val	Met	Lys	Met	Asp	Leu	Ser
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Glu	Ser	Ser	Lys	Pro	Leu	Gln	Gln	His	Leu	Thr	Thr	Lys	Gly	His	Phe
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Ser	Glu	Thr	Asn	Gln	His	Asp	Ser	Lys	Asn	Gln	Phe	Val	Ser	Leu	Gly
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Ala	Val	Glu	Asp	Gly	Asp	Ser	Lys	Ser	His	Phe	Gln	Gln	Ser	Leu	Asp
				645					650					655	
Val	Arg	His	Val	Thr	Ser	Asp	Phe	Asn	Ser	Met	Thr	Ala	Thr	Val	Gly
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Lys	Pro														
	110	Gln	Asn	lle	Asn	Asp	Thr	Ser	Leu	Asn	Gly	Asn	Gln	Val	Thr
	110	Gln 675	Asn	lle	Asn	Asp	Thr 680	Ser	Leu	Asn	Gly	Asn 685	Gln	Va]	Thr
Val		675			Asn Val		680					685			
Val		675					680					685			
	Asn 690	675 Leu	Ser	Pro		Pro 695	680 Ala	Leu	Gln	Ser	Lys 700	685 Met	Thr	Leu	Asp
	Asn 690	675 Leu	Ser	Pro	Val	Pro 695 Pro	680 Ala	Leu Gln	Gln Asn	Ser	Lys 700	685 Met Thr	Thr Lys	Leu	Asp
Gln 705	Asn 690 Gln	675 Leu His	Ser 11e	Pro Glu	Val Thr	Pro 695 Pro	680 Ala Gly	Leu Gln	Gln Asn	Ser Ile 715	Lys 700 Pro	685 Met Thr	Thr Lys	Leu Val	Asp Thr 720
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Gln 705 Ser	Asn 690 Gln Ala	675 Leu His Val	Ser lle Val	Pro Glu Gly 725	Val Thr 710	Pro 695 Pro Ser	680 Ala Gly His	Leu Gln Glu	Gln Asn Val 730	Ser Ile 715 Gln	Lys 700 Pro Glu	685 Met Thr Gln	Thr Lys Ser	Leu Val Ser 735	Asp Thr 720 Gly
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Gln 705 Ser Pro Glu Val	Asn 690 Gln Ala Phe Ala Ser 770	675 Leu His Val Lys Pro 755 Ser	Ser He Val Lys 740 Val Ser	Pro Glu Gly 725 Gln Asp	Val Thr 710 Pro Ser	Pro 695 Pro Ser Ala Thr	680 Ala Gly His Thr Leu 760 Ser	Leu Gln Glu Asn 745 Asn	Gln Asn Val 730 Leu Asn Glu	Ser Ile 715 Gln Glu Asn Ser	Lys 700 Pro Glu Ser Arg Ala 780	685 Met Thr Gln Glu Asn 765 Thr	Thr Lys Ser Glu 750 Gln Ser	Leu Val Ser 735 Asp Glu	Asp Thr 720 Gly Ser Phe

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Ser	Ala	Leu	Ala	Leu	Leu	Ala	Met	Ala	Gln	Ser	Gly	Asp	Ala	Val
			805					810					815	•
Val	Lys	He	Glu	Glu	Glu	Asn	Gln	Asp	Leu	Met	His	Phe	Asn	Leu
		820					825					830		
Lys	Lys	Arg	Ala	Lys	Gly	Lys	Gly	Gln	Val	Lys	Glu	Glu	Asp	Asn
	835					840					845			
Asn	Gln	Lys	Gln	Leu	Lys	Arg	Pro	Ala	Gln	Gly	Lys	Arg	Gln	Asn
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Arg	Gly	Thr	Asp	He	Tyr	Leu	Pro	Tyr	Thr	Pro	Pro	Ser	Ser	Glu
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Cys	His	Asp	Gly	Tyr	Gln	His	Gln	Glu	Lys	Met	Arg	Gln	Lys	He
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Glu	Val	Glu	Glu	Lys	Gln	Pro	Glu	Val	Lys	Thr	Gly	Phe	He	Ala
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Phe	Leu	Asp	Phe	Leu	Lys	Ser	Gly	Pro	Lys	Gln	Gln	Phe	Ser	Thr
	915					920					925			
Ala	Val	Arg	Met	Pro	Asn	Arg	Thr	Arg	Arg	Pro	Gly	Thr	G1n	Met
930					935					940				
Arg	Thr	Phe	Cys	Pro	Pro	Pro	Leu	Pro	Lys	Pro	Ser	Ser	Thr	Thr
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Thr	Pro	Leu	Val	Ser	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Ser	Asp	Lys
								970						
Asp	Asn		Leu	Lys	Asn	Leu		His	Leu	Ser	Ser		Ser	Ser
Glu		Asp	Pro	Gly	Tyr	Ser	Gln	Asp	Ala			Ser	Val	Ser
_														
	Leu	Thr	Thr			Ala	Thr	Ser			Lys	Lys	Lys	Thr
	,	0.1				m.						mı.	mı.	0.1
	Leu	GIn			Thr	Thr	Ser			Ala	Asn	Thr		
	TI	TC1			m	Tr.	., .			37 1	,	61		1040
Ala	Thr			Ser	Thr	Thr			Ala	Val	Lys			Pro
1117	C			т.	A 3	V 1			1	C1	Α.			C
HIS			5er	lyr	Ala			He	Leu	61u			Ser	5er
C1			Luc	Dage	11.			A 6 5	C1	Lov			A a=	C1:-
	Val Lys Asn 850 Arg Cys Glu Phe Ala 930 Arg Chr Ala 930 Arg His	Val Lys Lys 835 Asn Gln 850 Arg Gly Cys His Glu Val Phe Leu 915 Ala Val 930 Arg Thr Thr Pro Asp Asn Glu Asp 995 Pro Leu 1010 Ala Leu 5 Ala Thr His Ser	Val Lys Ile 820 Lys Lys Arg 835 Asn Gln Lys 850 Arg Gly Thr  Cys His Asp Glu Val Glu 900 Phe Leu Asp 915 Ala Val Arg 930 Arg Thr Phe  Thr Pro Leu Asp Asp Glu Asp Asp 995 Pro Leu Thr 1010 Ala Leu Gln Ala Leu Gln Ala Ser Thr His Ser Thr	Val       Lys       11e       61u         Rot       820       11e       61u         Lys       Arg       Ala       835       1         Asn       Gln       Lys       Gln         850       Thr       Asp       Gly         Cys       His       Asp       Gly         Ses       Glu       Glu       Glu         Glu       Val       Arg       Met         930       He       Cys         Arg       Thr       Phe       Cys         Thr       Pro       Leu       Val       965         Asp       Asp       Pro       995         Pro       Leu       Thr       Thr      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    Pro       Leu       Lys         980       -       965         Asp       Asp       Pro       Gly         995       -       980         Pro       Leu       Thr       Thr       Leu         1010       -       1030         Ala	Ser       Ala       Leu       Ala       Leu       Leu         Wal       Lys       Ile       Glu       Glu       Glu         Lys       Arg       Ala       Lys       Gly         Asn       Gln       Lys       Gly       Leu       Lys         Asn       Gly       Thr       Asp       Ile       Tyr         Arg       His       Asp       Gly       Tyr       Gln         Arg       His       Asp       Gly       Tyr       Gln         Bro       His       Asp       Gly       Tyr       Gln         Bro       His       Asp       Gly       Tyr       Gln         Bro       His       Asp       Phe       Leu       Lys         Glu       Asp       Phe       Leu       Lys       Pro         Asp       Thr       Phe       Cys       Pro       Pro         Asp       Asp       Pro       Gly       Tyr         Asp       Asp       Pro       Gly       Tyr         Asp       Asp       Pro       Gly       Tyr         Asp       Fro       Fro       Asp         A	Ser       Ala       Leu       Ala       Leu       Leu       Ala         Val       Lys       Ile       Glu       Glu       Glu       Asn         Lys       Lys       Ala       Lys       Gly       Lys         Lys       Arg       Ala       Lys       Gly       Lys         Asn       Gly       Lys       Gly       Lys       Arg         Asn       Gly       Thr       Asp       Ile       Lys       Leu         Arg       His       Asp       Gly       Tyr       Gln       His         Arg       His       Asp       Gly       Tyr       Leu       Pro       P	Ser       Ala       Leu       Ala       Leu       Ala       Met         Val       Lys       Ile       Glu       Glu       Glu       Asn       Gln         Val       Lys       Arg       Ala       Lys       Gly       Lys       Gly         Asn       Gln       Lys       Gly       Lys       Arg       Pro         Asn       Gln       Lys       Gly       Arg       Pro         Asn       Glu       Tyr       Gln       His       Arg         Arg       His       Asp       Gly       Tyr       Gln       His       Gln         Arg       His       Asp       Gly       Tyr       Gln       His       Gln         Arg       His       Asp       Gly       Tyr       Gln       His       Gln         Arg       His       Asp       Phe       Leu       Lys       Ser       Gly         Arg       Fro       Pro       Pro       Pro       Pro       Pro       Pro       Leu       Gly       Pro       Pro       Leu       Gly       Pro       Pro       Leu       Gly       Pro       Pro       Pro       Pro       P	Ser       Ala       Leu       Leu       Ala       Met       Ala         Val       Lys       11e       Glu       Glu       Glu       Asn       Gln       Asp         Lys       Lys       Arg       Ala       Lys       Gly       Lys       Gly       Gln         Asn       Gln       Lys       Gly       Lys       Gly       Pro       Ala         850	Ser       Ala       Leu       Ala       Leu       Ala       Met       Ala       Glu         Val       Lys       Ile       Glu       Glu       Glu       Asn       Gln       Asp       Leu         Rys       Lys       Arg       Ala       Lys       Gly       Lys       Gly       Gln       Val         Asn       Gln       Lys       Gln       Leu       Lys       Arg       Pro       Ala       Gln         Asn       Gln       Lys       Gln       Leu       Lys       Arg       Pro       Ala       Gln         Arg       Gly       Thr       Asp       Ile       Tyr       Leu       Pro       Ala       Lys         Arg       His       Asp       Gly       Tyr       Gln       His       Glu       Lys         Arg       His       Asp       Gly       Tyr       Gln       His       Glu       Lys         Arg       His       Glu       Glu       His       Arg       Arg       Arg         Ala       Val       Arg       Met       Pro       Arg       Arg       Arg       Arg       Arg         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Phe A	lla	Lys	Gly	Gln	Asp	Thr	Val	Ala	He	Glu	Gly	Phe	Thr	Asp	Glı
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Phe V	al	Val	Lys	lle	Glu	Asp	He	Glu	Thr	Phe	Lys	Glu	Ala	Leu	Lys
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Thr G	Gly	Lys	Glu	Pro	Pro	Ala	11e	Trp	Lys	Val	Gln	Lys	Ala	Leu	Leı
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Arg V	/al	Cys	Ser	Lys	Lys	${\tt Pro}$	Arg	Asn	Lys	Pro	Ser	Gln	Thr	lle	Arg
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Thr V	/al	Gln	Ala	Lys	Pro	Ser	Ser	Ser	Ser	Lys	Thr	Ser	Asp	Pro	Leu
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Ala S	Ser	Lys	Thr	Thr	Thr	Thr	Lys	Ala	Pro	Ser	Val	Lys	Pro	Lys	Val
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Lys G	51n	Pro	Lys	Val	Lys	Ala	Glu	Pro	Pro	Pro	Lys	Lys	Arg	Lys	Lys
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Trp L	.ys	Glu	Glu	Phe	Ser	Ser	Ser	G1n	Ser	Asp	Ser	Ser	Pro	Glu	Πle
1265					1270					1275					1280
His T	hr	Ser	Ser	Ser	Asp	Asp	Glu	Glu	Phe	Glu	Pro	Pro	Ala	Pro	Phe
				1285				-	1290					1295	
Val T	hr	Arg	Phe	Leu	Asn	Thr	Arg	Ala	Met	Lys	Glu	Thr	Phe	Lys	Ser
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Tyr M	let	Glu													

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                                 25
Arg Arg Leu Gly Ser Gly Ile Ser Gly Phe Phe Cys Arg Ile Glu Thr
         35
                             40
                                                  45
Cys Pro Trp Ala Leu Thr Leu Asn Thr Gly Arg Ser Ala Ala Cys Cys
                         55
Leu Ser Val Ala Trp Pro Leu His Pro Pro Ser Pro Ser Pro Cys Tyr
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                                          75
                                                              80
Pro Val Arg Arg Val Arg Gln Ser Leu His Pro Ser Ser Ser Trp Gly
                                     90
Gly Arg Ser Ala Glu Ala Ser Gly Asp Leu Leu Arg Gly Val Cys Leu
                                105
            100
                                                    110
Ala Arg Asp Val Ser Ile Pro His Arg Gln Gly Arg Cys Leu Pro Arg
        115
                            120
                                                 125
Ser Pro Trp Gly Ser Ala Gly Val Asn Ala Ala Leu Gln Gly Gly Arg
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Gly His Lys Leu Thr Ala
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Ser	Gln	Glu	Ser	Glu	Ser	Glu	Gly	Lys	Gln	Pro	Pro	Pro	Gly	Pro	Leu
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Ala	Pro	Pro	Lys	Ser	Pro	Glu	Pro	Ser	Gly	Pro	Leu	Ala	Ser	Glu	Gln
	50					55					60				
Asp	Ala	Pro	Leu	Pro	Glu	Gly	Asp	Asp	Ala	Pro	Pro	Arg	Pro	Ser	Met
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Leu	Asp	Asp	Ala	Pro	Arg	Leu	Pro	Leu	Glu	Leu	Asp	Asp	Ala	Pro	Leu
				85					90					95	
Pro	Glu	Glu	Glu	Thr	Pro	Glu	Pro	Thr	Ala	Ile	Cys	Arg	His	Arg	His
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Arg	Cys	His	Thr	Asp	Cys	Leu	Glu	Gly	Leu	Leu	Ser	Arg	Thr	Phe	Gln
		115					120					125			
Trp	Leu	Gly	Trp	Gln	Val	Gly	Ala	His	Pro	Trp	He	Phe	Leu	Leu	Ala
	130					135					140				
Pro	Leu	Met	Leu	Thr	Ala	Ala	Leu	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Pro
145					150					155					160
Lys	Asp	Glu	Glu	Glu	Asp	Leu	Glu	Glu	His	Tyr	Thr	Pro	Val	Gly	Ser
				165					170					175	
Pro	Ala	Lys	Ala	Glu	Arg	Arg	Phe	Val	Gln	Gly	His	Phe	Thr	Thr	Asn
			180					185					190		
Asp	Ser	Tyr	Arg	Phe	Ser	Ala	Ser	Arg	Arg	Ser	Thr	Glu	Ala	Asn	Phe
		195					200					205			
Va]	Ser	Leu	Leu	Val	Val	Ser	Tyr	Ser	Asp	Ser	Leu	Leu	Asp	Pro	Ala
	210					215					220				
Thr	Phe	Ala	Glu	Val	Ser	Lys	Leu	Asp	G] y	Ala	Val	Gln	Asp	Leu	Arg
225					230					235					240
Va]	Ala	Arg	G1u	Lys	Gly	Ser	Gln	He	Gln	Tyr	Gln	Gln	Val	Cys	Ala
				245					250					255	
Arg	Tyr	Arg	Ala	Leu	Cys	Val	Pro	Pro	Asn	Pro	He	Leu	Tyr	Ala	Trp
			260					265					270		
Gln	Val	Asn	Lys	Thr	Leu	Asn	Leu	Ser	Ser	lle	Ser	Phe	Pro	Ala	Tyr
		275					280					285			
Asn	His	Gly	Arg	His	Pro	Leu	Tyr	Leu	Thr	Gly	Phe	Phe	Gly	Gly	Tyr

	290					295					300				
Πe	Leu	Gly	Gly	Ser	Leu	Gly	Met	Gly	Gln	Leu	Leu	Leu	Arg	Ala	Lys
305					310					315					320
Ala	Met	Arg	Leu	Leu	Tyr	Tyr	Leu	Lys	Thr	Glu	Asp	Pro	Glu	Tyr	Asp
				325					330					335	
Val	Gln	Ser	Lys	Gln	Trp	Leu	Thr	His	Leu	Leu	Asp	Gln	Phe	Thr	Asn
			340					345					350		
Пe	Lys	Asn	lle	Leu	Ala	Leu	Lys	Lys	Ile	Glu	Val	Val	His	Phe	Thr
		355					360					365			
Ser	Leu	Ser	Arg	Gln	Leu	Glu	Phe	Glu	Ala	Thr	Ser	Val	Thr	Val	He
	370					375					380				
Pro	Val	Phe	His	Leu	Ala	Tyr	11e	Leu	Ile	He	Leu	Phe	Ala	Val	Thr
385					390					395					400
Ser	Cys	Phe	Gly	Phe	Asp	Cys	Пе	Arg	Asn	Lys	Met	Cys	Val	Ala	Ala
				405					410					415	
Phe	Gly	Val	lle	Ser	Ala	Phe	Leu	Ala	Val	Val	Ser	Gly	Phe	Gly	Leu
			420					425					430		
Leu	Leu	His	11e	Gly	Val	Pro	Phe	Val	Ile	Ile	Val	Ala	Asn	Ser	Pro
		435					440					445			
Phe	Leu	Ile	Leu	Gly	Val	Gly	Val	Asp	Asp	Met	Phe	He	Met	lle	Ser
	450					455					460				
Ala	Trp	His	Lys	Thr	Asn	Leu	Ala	Gly	Asp	lle	Arg	Glu	Arg	Met	Ser
465					470					475					480
Asn	Val	Tyr	Ser	Lys	Ala	Ala	Val	Ser	lle	Thr	11e	Thr	Thr	lle	Thr
				485					490					495	
Asn	He	Leu	Ala	Leu	Tyr	Thr	Gly	lle	Met	Ser	Ser	Phe	Arg	Ser	Val
			500					505					510		
Gln	Cys	Phe	Cys	He	Tyr	Thr	Gly	Thr	Thr	Leu	Leu	Phe	Cys	Tyr	Phe
		515					520	*				525			
Tyr	Asn	lle	Thr	Cys	Phe	Gly	Ala	Phe	Met	Ala	Leu	Asp	G1 y	Lys	Arg
	530					535					540				
Glu	Val	Val	Cys	Leu	Cys	Trp	Leu	Lys	Lys	Ala	Asp	Pro	Lys	Trp	Pro
545					550					555					560
Ser	Phe	Lys	Lys	Phe	Cys	Cys	Phe	Pro	Phe	Gly	Ser	Va]	Pro	Asp	Glu
				565					570					575	
His	Gly	Thr	Asp	He	His	Pro	Met	Ser	Leu	Phe	Phe	Arg	Asp	Tyr	Phe

			580					585					590		
Gly	Pro	Phe	Leu	Thr	Arg	Ser	Glu	Ser	Lys	Tyr	Phe	Val	Val	Phe	He
		595					600					605			
Tyr	Val	Leu	Tyr	He	lle	Ser	Ser	lle	Tyr	G1 y	Cys	Phe	His	Val	Gln
	610					615					620				
Glu	Gly	Leu	Asp	Leu	Arg	Asn	Leu	Ala	Ser	Asp	Asp	Ser	Tyr	He	Thr
625					630					635					640
Pro	Tyr	Phe	Asn	Val	Glu	Glu	Asn	Tyr	Phe	Ser	Asp	Tyr	Gly	Pro	Arg
				645					650					655	
Val	Met	Val	He	Val	Thr	Lys	Lys	Val	Asp	Tyr	Trp	Asp	Lys	Asp	Val
			660					665					670		
Arg	Gln	Lys	Leu	Glu	Asn	Cys	Thr	Lys	11e	Phe	Glu	Lys	Asn	Val	Tyr
		675					680					685			
Val	Asp	Lys	Asn	Leu	Thr	Glu	Phe	Trp	Leu	Asp	Ala	Tyr	Val	G1n	Tyr
	690					695					700				
Leu	Lys	Gly	Asn	Ser	Gln	Asp	Pro	Asn	Glu	Lys	Asn	Thr	Phe	Met	Asn
705					710					715					720
Asn	Ile	Pro	Asp	Phe	Leu	Ser	Asn	Phe	Pro	Asn	Phe	Gln	His	Asp	He
				725					730					735	
Asn	He	Ser	Ser	Ser	Asn	Glu	Пe	lle	Ser	Ser	Arg	Gly	Phe	lle	Gln
			740					745					750		
Thr	Thr	Asp	Val	Ser	Ser	Ser	Ala	Lys	Lys	Lys	He	Leu	Leu	Phe	Gln
		755					760					765			
Leu	Arg	Arg	He	Ala	Glu	Asp	Cys	Gln	He	Pro	Leu	Met	Va]	Tyr	Asn
	770					775					780				
Gln	Ala	Phe	He	Tyr	Phe	Лsp	Gln	Tyr	Ala	Ala	lle	Leu	Glu	Asp	Thr
785					790					795					800
Val	Arg	Asn													

<210> 3899

<211> 520

<212> PRT

<213> Homo sapiens

<400	)> 38	399													
Met	Glu	Phe	His	Asn	Gly	Gly	His	Val	Ser	Gly	He	Gly	Gly	Phe	Leu
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Val	Ser	Leu	Thr	Ser	Arg	Met	Lys	Pro	His	Thr	Leu	Ala	Val	Thr	Pro
			20					25					30		
Ala	Leu	He	Phe	Ala	He	Thr	Va]	Ala	Thr	lle	Gly	Ser	Phe	G1n	Phe
		35					40					45			
Gly	Tyr	Asn	Thr	G1 y	Val	He	Asn	Ala	Pro	Glu	Thr	Ile	Ile	Lys	Glu
	50					55					60				
Phe	He	Asn	Lys	Thr	Leu	Thr	Asp	Lys	Ala	Asn	Ala	Pro	Pro	Ser	Glu
65					70					75					80
Val	Leu	Leu	Thr	Asn	Leu	Trp	Ser	Leu	Ser	Val	Ala	He	Phe	Ser	Val
				85					90					95	
Gly	Gly	Met	He	61 y	Ser	Phe	Ser	Val	Gly	Leu	Phe	Val	Asn	Arg	Phe
			100					105					110		
Gly	Arg	Arg	Asn	Ser	Met	Leu	He	Val	Asn	Leu	Leu	Ala	Ala	Thr	Gly
		115					120					125			
Gly	Cys	Leu	Met	Gly	Leu	Cys	Lys	He	Ala	Glu	Ser	Val	Glu	Met	Leu
	130					135					140				
11e	Leu	Gly	Arg	Leu	Val	He	Gly	Leu	Phe	Cys	Gly	Leu	Cys	Thr	Gly
145					150					155					160
Phe	Val	Pro	Met	Tyr	He	Gly	Glu	He	Ser	Pro	Thr	Ala	Leu	Arg	Gly
				165					170					175	
Ala	Phe	Gly	Thr	Leu	Asn	Gln	Leu	Gly	He	Val	lle	Gly	lle	Leu	Val
			180					185					190		
Ala	Gln	He	Phe	Gly	Leu	Głu	Leu	11e	Leu	Gly	Ser	Glu	Glu	Leu	Trp
		195					200					205			
Pro	Val	Leu	Leu	Gly	Phe	Thr	Пе	Leu	Pro	Ala	lle	Leu	Gln	Ser	Ala
	210					215					220				
Ala	Leu	Pro	Cys	Cys	Pro	Glu	Ser	Pro	Arg	Phe	Leu	Leu	lle	Asn	Arg
225					230					235					240
Lys	Lys	Glu	Glu	Asn	Ala	Thr	Arg	He	Leu	Gln	Arg	Leu	Trp	Gly	Thr
				245					250					255	
Gln	Asp	Val	Ser	Gln	Asp	He	Gln	Glu	Met	Lys	Asp	Glu	Ser	Ala	Arg
			260					265					270		
Met	Ser	Gln	Glu	Lys	G1n	Val	Thr	Val	Leu	Glu	Leu	Phe	Arg	Val	Ser

		275					280					285			
Ser	Tyr	Arg	Gln	Pro	He	He	He	Ser	He	Val	Leu	Gln	Leu	Ser	Gln
	290					295					300				
Gln	Leu	Ser	Gly	He	Asn	Ala	Val	Phe	Tyr	Tyr	Ser	Thr	Gly	He	Phe
305					310					315					320
Lys	Asp	Ala	Gly	Val	Gln	Gln	Pro	lle	Tyr	Ala	Thr	lle	Ser	Ala	G1 y
				325					330					335	
Val	Val	Asn	Thr	lle	Phe	Thr	Leu	Leu	Ser	Leu	Phe	Leu	Val	Glu	Arg
			340					345					350		
Ala	Gly	Arg	Arg	Thr	Leu	His	Met	Ile	Gly	Leu	Gly	Gly	Met	Ala	Phe
		355					360					365			
Cys	Ser	Thr	Leu	Met	Thr	Val	Ser	Leu	Leu	Leu	Lys	Asn	His	Tyr	Asn
	370					375					380				
Gly	Met	Ser	Phe	Va]	Cys	He	Gly	Ala	Пе	Leu	Val	Phe	Val	Ala	Cys
385					390					395					400
Phe	Glu	lle	Gly	Pro	Gly	Pro	He	Pro	Trp	Phe	He	Val	Ala	Glu	Leu
				405					410					415	
Phe	Ser	Gln	Gly	Pro	Arg	Pro	Ala	Ala	Met	Ala	Val	Ala	Gly	Cys	Ser
			420					425					430		
Asn	Trp	Thr	Ser	Asn	Phe	Leu	Val	Gly	Leu	Leu	Phe	Pro	Ser	Ala	Ala
		435					440					445			
Tyr	Tyr	Leu	Gly	Ala	Tyr	Val	Phe	lle	He	Phe	Thr	Gly	Phe	Leu	lle
	450					455					460				
Thr	Phe	Leu	Ala	Phe	Thr	Phe	Phe	Lys	Val	Pro	Glu	Thr	Arg	Gly	Arg
465					470					475					480
Thr	Phe	Glu	Asp	He	Thr	Arg	Ala	Phe	Glu	Gly	Gln	Ala	His	Gly	Ala
				485					490					495	
Asp	Arg	Ser	Gly	Lys	Asp	Gly	Val	Met	Gly	Met	Asn	Ser	He	Glu	Pro
			500					505					510		
Ala	Lys	Glu	Thr	Thr	Thr	Asn	Val								
		515					520								

<210> 3900

<211> 213

<212> PRT

## <213> Homo sapiens

<400> 3900 Met Gly Arg Cys Ser Trp His Pro Glu Cys Val Ser Gly Gln Ala Leu 10 Val Lys Glu Ala Leu Ala Gly Thr Arg Asp Met Thr Ser Thr Leu Arg 25 Phe His Pro Gln Ser Thr Gln Met Arg Arg Val Ser Pro Gly Ala Pro 35 40 45 Pro Cys Pro Thr Pro Thr Leu Gly Gly lle Leu Ser Arg Glu Met Gly 55 60 Pro Pro Ser Pro Arg Arg Pro Arg Ala Val Ala Val Arg Val Arg Lys 70 75 Ala Thr Thr Cys Ala Val Phe Val Val Thr Glu Thr Trp Glu Ser Leu 85 90 Thr Gly Ser Pro Thr Glu Ala Gly Ala Gly Leu Gly Ser Glu Ala Pro 105 Gly Glu Pro Arg Ala Ala Gly Phe Cys Thr His Leu Leu His Leu Pro 115 120 125 Thr His Thr Trp Lys Lys Ser Gln Ala His Leu Glu Ala Ala Gln Leu 130 135 140 Leu Ser Ser Cys Pro Pro Ile Pro Gly Phe Ser Ser Gln Leu His Pro 150 155 Gly Pro Gly Thr Pro Cys Asn Leu Gly Ser Pro Ala Pro Leu Arg Gly 165 170 Leu Pro Val Thr Trp Ser Gln Leu Pro Pro Arg Gly Ala Asp Leu Thr 185 Ser Thr Thr Cys Gln Trp His Val Pro Gly Glu Gln Glu Leu Gly Leu 195 200 205 Gln Gly Pro Cys Leu

<210> 3901

210

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3901

Met Ala Val Tyr Asn Met Val Pro Arg Arg Val Gly 11e Gln Arg Lys

1 5 10 15

Trp Glu Leu Ser Ser Glu Cys Ala Pro Asn Leu Arg Ser Asp Thr Pro
20 25 30

Ser Phe Leu Leu Tyr Phe Thr Gly Tyr Thr Asp Gln Cys Leu Tyr Asn 35 40 45

Val Gly Gly Asn Ser Ile Thr Val Asn Ile Ile Arg Gln Gly Ser Leu
50 55 60

Gly Thr Val Leu Glu Thr Asp Ser His Ser Pro Lys Pro Phe Arg Tyr
65 70 75 80

Ala Leu Ile Tyr Glu Phe Thr Ile Ile Phe Lys Thr Asn Ser Trp Ala 85 90 95

Arg Trp Pro Ala Pro Ile Val Pro Ala Ile Gln Glu Val Glu Glu Gly
100 105 110

Gly Phe Phe Glu Pro Arg Gly Leu Gly Leu
115 120

<210> 3902

<211> 449

<212> PRT

<213> Homo sapiens

<400> 3902

Met 11e Val Thr Gln Pro Lys Gly 11e Gly Ser Thr Val Gln Pro Ala 1 5 10 15

Ala Lys lle lle Pro Thr Lys lle Val Tyr Gly Gln Gln Gly Lys Thr 20 25 30

Gln Val Leu 11e Lys Pro Lys Pro Val Thr Phe Gln Ala Thr Val Val 35 40 45

Ser Glu Gln Thr Arg Gln Leu Val Thr Glu Thr Leu Gln Gln Ala Ser 50 55 60

Arg Val Ala Glu Ala Gly Asn Ser Ser Ile Gln Glu Gly Lys Glu Glu

65					70					75					80
Pro	Gln	Asn	Tyr	Thr	Asp	Ser	Ser	Ser	Ser	Ser	Thr	Glu	Ser	Ser	Gln
				85					90					95	
Ser	Ser	Gln	Asp	Ser	Gln	Pro	Val	Val	His	Val	Пe	Ala	Ser	Arg	Arg
			100					105					110		
G1n	Asp	Trp	Ser	Glu	His	Glu	Ile	Ala	Met	Glu	Thr	Ser	Pro	Thr	He
		115					120					125			
He	Tyr	Gln	Asp	Val	Ser	Ser	Glu	Ser	Gln	Ser	Ala	Thr	Ser	Thr	lle
	130					135					140				
Lys	Ala	Leu	Leu	Glu	Leu	Gln	Gln	Thr	Thr	Val	Lys	Glu	Lys	Leu	Glu
145					150					155					160
Ser	Lys	Pro	Arg	Gln	Pro	Thr	Ile	Asp	Leu	Ser	Gln	Met	Ala	Val	Pro
				165					170					175	
Пe	Gln	Met	Thr	Gln	Glu	Lys	Arg	His	Ser	Pro	Glu	Ser	Pro	Ser	He
			180					185					190		
Ala	Val	Val	Glu	Ser	Glu	Leu	Val	Ala	Glu	Tyr	He	Thr	Thr	Val	Ser
		195					200					205			
His	Arg	Ser	Gln	Pro	G1n		Pro	Ser	Gln	Pro	Gln	Arg	Thr	Leu	Leu
	210					215					220				
	His	Val	Ala	Gln		Gln	Thr	Ala	Thr		Thr	Ser	Val	Val	
225			_		230					235					240
Lys	Ser	He	Pro		Ser	Ser	Pro	Gly		lle	Thr	His	He	Met	Gln
				245					250					255	
GIn	Ala	Leu		Ser	His	Thr	Ala		Thr	Lys	llis	Ser		Glu	Leu
C1	T)	6.1	260	6.1	0.1	17 1	0.1	265			773		270	Б	0.1
Gly	Ihr		Glu	Gly	Glu	Val		Glu	Met	Asp	Thr		Asp	Pro	GIn
T1	C1	275	DL.	Т	Δ	C	280	ı	TI	C1	C	285	C	4.1	
1111		Leu	rne	lyr	Arg		мта	Leu	Inr	61n		GIN	ser	Ala	Lys
C1n	290	Luc	Lau	Con	Cln	295 Pro	Dno	Lau	C1	C1	300	C1	Lan	C1	V = 1
305	GIH	LyS	Leu	261	310	L10	110	Leu	Gru	315	1111	GIII	Leu	Gln	
	Thr	Lou	Gln	Cve		Gln	The	Lvc	Cln		Cln	The	Tlo	His	320
Lys	1 113	Leu	OIII	325	THE	0111	1111	Lys	330	Lys	6111	1111	116	335	Leu
Gln	Ala	Asn	Gla		Gln	Hic	lve	Lau		Gla	Met	Pro	Gla	Leu	Ser
9111	111 a	пор	340	LCU	0111	1113	டரல	345	110	0.111	ne t	110	350	Leu	OC1
He	Arø	His		lvs	Leu	Thr	Pro		Gln	Gln	Glu	Gln		Gln	Pro

355 360 365 Lys Pro Asp Val Gln His Thr Gln His Pro Met Val Ala Glu Asp Arg 375 380 Gln Leu Pro Thr Leu Met Ala Gln Pro Pro Gln Thr Val Val Gln Val 385 390 395 400 Leu Ala Val Lys Thr Thr Gln Gln Leu Pro Lys Leu Gln Gln Ala Pro 410 Asn Gln Pro Lys Ile Tyr Val Gln Pro Gln Thr Pro Gln Ser Gln Met 430 425 Ser Leu Pro Ala Ser Ser Glu Lys Gln Thr Ala Ser Gln Val Thr Glu 435 445 440 Tyr

<210> 3903

<211> 968

<212> PRT

<213> Homo sapiens

<400> 3903

Met Arg Cys Pro Gly Pro Arg Leu Leu Glu Thr Ser Trp Arg His Pro

1 5 10 15

Pro Ala Pro Phe Thr Ser Thr Asn Arg His Leu Tyr Asp Phe Thr Gly
20 25 30

Asn Leu Asn Leu Asp Gly Lys Ser Leu Val Ala Leu Gly Pro Asp Gln
35 40 45

11e Leu Leu Arg Gly Thr Gln Leu Arg Asn Thr Gln Trp Val Phe Gly
50 55 60

lle Val Val Tyr Thr Gly His Asp Thr Lys Leu Met Gln Asn Ser Thr
65 70 75 80

Lys Ala Pro Leu Lys Arg Ser Asn Val Glu Lys Val Thr Asn Val Gln 85 90 95

lle Leu Val Leu Phe Gly lle Leu Leu Val Met Ala Leu Val Ser Ser 100 105 110

Ala Gly Ala Leu Tyr Trp Asn Arg Ser His Gly Glu Lys Asn Trp Tyr

		115					120					125			
lle	Lys	Lys	Met	Asp	Thr	Thr	Ser	Asp	Asn	Phe	Gly	Tyr	Asn	Leu	Leu
	130					135					140				
Thr	Phe	He	He	Leu	Tyr	Asn	Asn	Leu	lle	Pro	He	Ser	Leu	Leu	Val
145					150					155					160
Thr	Leu	Glu	Val	Val	Lys	Tyr	Thr	Gln	Ala	Leu	Phe	He	Asn	Trp	Asp
				165					170					175	
Thr	Asp	Met	Tyr	Tyr	Tle	G1y	Asn	Asp	Thr	Pro	Ala	Met	Ala	Arg	Thr
			180					185					190		
Ser	Asn	Leu	Asn	Glu	Glu	Leu	Gly	Gln	Val	Lys	Tyr	Leu	Phe	Ser	Asp
		195					200					205			
Lys	Thr	Gly	Thr	Leu	Thr	Cys	Asn	He	Met	Asn	Phe	Lys	Lys	Cys	Ser
	210					215					220				
lle	Ala	Gly	Val	Thr	Tyr	Gly	His	Phe	Pro	Glu	Leu	Ala	Arg	G1u	Pro
225					230					235					240
Ser	Ser	Asp	Asp	Phe	Cys	Arg	Met	Pro	Pro	Pro	Cys	Ser	Asp	Ser	Cys
				245					250					255	
Asp	Phe	Asp	Asp	Pro	Arg	Leu	Leu	Lys	Asn	He	Glu	Asp	Arg	His	Pro
			260					265					270		
Thr	Ala	Pro	Cys	He	Gln	Glu	Phe	Leu	Thr	Leu	Leu	Ala	Val	Cys	His
		275					280					285			
Thr	Val	Val	Pro	Glu	Lys	Asp	Gly	Asp	Asn	lle	lle	Tyr	Gln	Ala	Ser
	290					295					300				
Ser	Pro	Asp	Glu	Ala	Ala	Leu	Val	Lys	Gly	Ala	Lys	Lys	Leu	Gly	Phe
305					310					315					320
Val	Phe	Thr	Ala	Arg	Thr	Pro	Phe	Ser	Val	Пе	11e	Glu	Ala	Met	Gly
				325					330					335	
Gln	Glu	Gln	Thr	Phe	Gly	lle	Leu	Asn	Val	Leu	Glu	Phe	Ser	Ser	Asp
			340					345					350		
Arg	Lys	Arg	Met	Ser	Val	He	Val	Arg	Thr	Pro	Ser	Gly	Arg	Leu	Arg
		355					360					365			
Leu	Tyr	Cys	Lys	Gly	Ala	Asp	Asn	Val	He	Phe	Glu	Arg	Leu	Ser	Lys
	370					375					380				
Asp	Ser	Lys	Tyr	Met	Glu	Glu	Thr	Leu	Cys	His	Leu	Glu	Tyr	Phe	Ala
385					390					395					400
TI	C1	Glv	Phe	Arø	Thr	Len	Cvs	Val	Ala	Tvr	Ala	Asp	Leu	Ser	Glu

				405					410					415	
Asn	Glu	Tyr	Glu	Glu	Trp	Leu	Lys	Val	Tyr	Gln	Glu	Ala	Ser	Thr	lle
			420					425					430		
Leu	Lys	Asp	Arg	Ala	Gln	Arg	Leu	Glu	Glu	Cys	Tyr	Glu	lle	He	Glu
		435					440					445			
Lys	Asn	Leu	Leu	Leu	Leu	Gly	Ala	Thr	Ala	11e	Glu	Asp	Arg	Leu	Gln
	450					455					460				
Ala	G1y	Val	Pro	Glu	Thr	Ile	Ala	Thr	Leu	Leu	Lys	Ala	Glu	Пе	Lys
465					470					475					480
Ile	Trp	Val	Leu	Thr	Gly	Asp	Lys	Gln	Glu	Thr	Ala	Ile	Asn	Ile	Gly
				485					490					495	
Tyr	Ser	Cys	Arg	Leu	Va]	Ser	Gln	Asn	Met	Ala	Leu	lle	Leu	Leu	Lys
			500					505					510		
Glu	Asp	Ser	Leu	Asp	Ala	Thr	Arg	Ala	Ala	11e	Thr	Gln	His	Cys	Thr
		515					520					525			
Asp		Gly	Asn	Leu	Leu		Lys	Glu	Asn	Asp		Ala	Leu	lle	He
	530					535					540				
	Gly	His	Thr	Leu	Lys	Tyr	Ala	Leu	Ser		Glu	Val	Arg	Arg	
545 Di			,		550	0	0		. 1	555	T 1	0	0		560
Phe	Leu	Asp	Leu		Leu	Ser	Cys	Lys		Val	ile	Cys	Cys		Val
C	D		C 1	565	C	C1	11	W I	570	V 1	v i	ī	1	575	V7 1
Ser	Pro	Leu		Lys	Ser	GIU	11e		Asp	val	vai	Lys	Lys 590	Arg	vai
Lve	Alo	Па	580	Lou	Ala	Ho	Cly	585	Cl v	Ala	Acn	Acn		Cly	Mot
Lys	пта	595	1111	Leu	MIG	116	600	nsp	Oly	Mia	ASII	605	vai	Oly	Met
He	Gln		Ala	His	Val	Glv		Glv	He	Ser	Glv		Glu	Glv	Met
110	610	1111	ma	mis	,	615	, 01	01,		561	620	71011	014	01,	
Gln		Thr	Asn	Asn	Ser		Tvr	Ala	He	Ala		Phe	Ser	Tvr	Leu
625					630					635				- 3 -	640
	Lys	Leu	Leu	Leu	Val	His	Gly	Ala	Trp		Tyr	Asn	Arg	Val	
	•			645					650					655	
Lys	Cys	Ile	Leu	Tyr	Cys	Phe	Tyr	Lys	Asn	Val	Va]	Leu	Tyr	He	lle
			660					665					670		
Glu	Leu	Trp	Phe	Ala	Phe	Val	Asn	Gly	Phe	Ser	Gly	GIn	lle	Leu	Phe
		675					680					685			

Glu	Arg	Trp	Cys	lle	Gly	Leu	Tyr	Asn	Val	Ile	Phe	Thr	Ala	Leu	Pro
	690					695					700				
Pro	Phe	Thr	Leu	Gly	He	Phe	Glu	Arg	Ser	Cys	Thr	Gln	G] u	Ser	Met
705					710					715					720
Leu	Arg	Phe	Pro	Gln	Leu	Tyr	Lys	He	Thr	Gln	Asn	Gly	Glu	Gly	Phe
				725					730					735	
Asn	Thr	Lys	Val	Phe	Trp	Gly	His	Cys	11e	Asn	Ala	Leu	Va]	His	Ser
			740					745					750		
Leu	lle	Leu	Phe	Trp	Phe	Pro	Met	Lys	Ala	Leu	Glu	His	Asp	Thr	Val
		755					760					765			
Leu	Thr	Ser	Gly	His	Ala	Thr	Asp	Tyr	Leu	Phe	Val	Gly	Asn	He	Val
	770					775					780				
Tyr	Thr	Tyr	Val	Val	Val	Thr	Val	Cys	Leu	Lys	Ala	Gly	Leu	Glu	Thr
785					790					795					800
Thr	Ala	Trp	Thr	Lys	Phe	Ser	His	Leu	Ala	Val	Trp	Gly	Ser	Met	Leu
				805					810					815	
Thr	Trp	Leu	Val	Phe	Phe	Gly	lle	Tyr	Ser	Thr	Ile	Trp	Pro	Thr	Πle
			820					825					830		
Pro	lle	Ala	Pro	Asp	Met	Arg	G1 y	Gln	Ala	Thr	Met	Val	Leu	Ser	Ser
		835					840					845			
Ala	His	Phe	Trp	Leu	Gly	Leu	Phe	Leu	Val	Pro	Thr	Ala	Cys	Leu	116
	850					855					860				
Glu	Asp	Val	Ala	Trp	Arg	Ala	Ala	Lys	His	Thr	Cys	Lys	Lys	Thr	Leu
865					870					875					880
Leu	Glu	Glu	Val	Gln	Glu	Leu	Glu	Thr	Lys	Ser	Arg	Val	Leu		Lys
				885					890					895	
Ala	Va]	Leu		Asp	Ser	Asn	Gly		Arg	Leu	Asn	Glu		Asp	Arg
			900					905					910		
Leu	Ile		Arg	Leu	Gly	Arg		Thr	Pro	Pro	Thr		Phe	Arg	Gly
		915					920					925			
Ser		Leu	Gln	Gln	Gly		Pro	His	Gly	Tyr	Ala	Phe	Ser	Gln	Glu
	930					935					940				
	His	Gly	Ala	Val		Gln	Glu	Glu	Va]		Arg	Ala	Tyr	Asp	
945					950					955					960
Thr	Lys	Lys	Lys	Ser	Arg	Lys	Lys								
				965											

<210> 3904 <211> 143 <212> PRT <213> Homo sapiens <400> 3904 Met Ile Pro Cys Gly Met Arg Phe Ile Gly Leu Ala Thr Val Leu Leu 10 1 5 15 Lys Pro Leu Leu Lys Gln Pro Ser Glu Val Leu Phe Val Lys Asp Leu 25 Thr Leu Leu Asn His Ser Met Lys Pro Thr Asp Cys Thr Val Thr Leu 40 45 Gln Val Ala His Met Ser Asn Gln Asp Ile Glu Lys Thr Gly Ala Glu 60 50 55 Asp His Leu Gly Ile Thr Ala Arg Glu Ala Ala Ser Gln Lys Leu Met 70 75 Val Pro Gly Ser Thr Ala His Arg Ala Leu Ser Ser Lys Pro Gln His 85 90 Phe Gln Val Arg Val Lys Val Phe Glu Ala Arg Gln Leu Met Gly Asn 105 Asn lle Lys Pro Val Val Lys Val Ser lle Ala Gly Gln Gln His Gln 115 120 125 Thr Arg Ile Lys Met Gly Asn Asn Pro Phe Phe Asn Glu Val Gly 130 135 140

<210> 3905

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3905

Met Arg Val Gly Thr Trp 11e Cys Leu Pro Gly Arg Pro Gly Arg Cys

1 5 10 15

Arg Lys Gln His Asp Leu Gly Asn Cys Pro Glu Val Pro Gly 11e Phe 25 Lys Thr Leu Ala Leu Ser Pro Gly Ala Pro Asp Met Met Gln Gln Pro 35 40 45 Arg Val Glu Thr Asp Thr Ile Gly Ala Gly Glu Gly Pro Gln Gln Ala 55 Val Pro Trp Ser Ala Trp Val Thr Arg His Gly Trp Val Arg Trp Trp 75 Val Ser His Met Pro Pro Ser Trp 11e Gln Trp Trp Ser Thr Ser Asn 90 Trp Arg Gln Pro Leu Gln Arg Leu Leu Trp Gly Leu Glu Gly Ile Leu 105 Tyr Leu Leu Ala Leu Met Leu Cys His Ala Leu Phe Thr Thr Gly 115 120 125 Ser His Leu Leu Ser Ser Leu Trp Pro Val Val Ala Ala Val Trp Arg 130 140 135 His Leu Leu Pro Ala Leu Leu Leu Val Leu Ser Ala Leu Pro Ala 150 155 Leu Leu Phe Thr Ala Ser Phe Leu Leu Leu Phe Ser Thr Leu Leu Ser 165 170 Leu Val Gly Leu Leu Thr Ser Met Thr His Pro Gly Asp Thr Gln Asp 180 185 190 Leu Asp Gln 195

<210> 3906

<211> 1116

<212> PRT

<213> Homo sapiens

<400> 3906

Met Glu Ser Pro Leu lle Tyr Val Ser Val Leu Leu Leu Asn 11e Phe
1 5 10 15
Glu Phe Ser Ser Gly lle Val Tyr Asn Lys Asp Asp Thr Glu Lys Arg
20 25 30

Phe	Ala	Cys	Ser	Asn	Lys	Gly	Phe	Pro	Gln	Glu	Asn	Glu	He	lle	Lys
		35					40					45			
Leu	Tyr 50	Leu	Phe	Leu	Glu	Asn 55	Leu	Lys	lle	Gln	Cys 60	Phe	Phe	Gln	Thr
Glu	Asn	Glu	He	Ala	Ser	Lys	Ala	Met	Leu	Ser	Val	Phe	Thr	Ser	G1 y
65					70					75					80
Gly	Leu	Ala	Pro	Ser 85	Leu	Gly	lle	Met	Asn 90	Ser	Thr	Tyr	Asn	Gly 95	Ile
Phe	His	Phe	Asn	Leu	Thr	Leu	Phe	Ser	Asp	Arg	Ile	Leu	Trp	Leu	Val
			100					105					110		
Asp	Ile	Pro	Arg	Glu	Asn	Ile	Thr	Gln	Ser	Thr	Asp	He	Ala	Ala	Val
		115					120					125			
Glu	Glu	Trp	Leu	Val	Arg	He	Thr	Leu	His	His	Gly	Leu	Asn	He	Tyr
	130					135					140				
Ala	Thr	Glu	Gly	Thr	Leu	Leu	Asp	Val	lle	Arg	Glu	Pro	lle	Leu	Gln
145					150					155					160
Trp	Thr	Pro	Gly	Asp	Val	Ile	Pro	Glu	Ser	Glu	lle	Ser	Lys	Leu	Tyr
				165					170					175	
Pro	His	Val	Val	Asp	Leu	Lys	Val	Thr	Lys	Cys	Pro	Cys	Ala	Asn	Asp
			180					185					190		
Val	Ala	Leu	Leu	Gly	Phe	He	Val	Asp	Thr	Ile	Val	Asp	Gly	Val	Tyr
		195					200					205			
He	Gly	He	Thr	Phe	G1 y	Gly	Phe	Trp	His	Asp	Tyr	Asp	Thr	Thr	Trp
	210					215					220				
Phe	Asn	Met	Thr	Gln	Thr	Ile	Tyr	Ser	Gln	Leu	Gln	Glu	Glu	Tyr	Glu
225					230					235					240
Asp	Leu	Ser	Leu	Va]	Asp	Met	Val	Leu	Thr	Asn	His	Phe	Leu	Val	11e
				245					250					255	
Leu	Thr	Ser	Leu	Gly	Leu	Phe	Val	Ser	Glu	Asp	Leu	Arg	Tyr	$\operatorname{Pro}$	Ser
			260					265					270		
Arg	His	Ser	Leu	Ser	Phe	Ser	Arg	Ala	Asp	Phe	Cys	Gly	Phe	Glu	Arg
		275					280					285			
Val	Asp	Tyr	Val	Lys	Gly	Lys	Leu	Trp	Tyr	Asn	Glu	Arg	Cys	Phe	Ala
	290					295					300				
Asn	Arg	Glu	His	Phe	Glu	Val	Asp	Tyr	Val	Thr	Val	Thr	Phe	Glu	Arg
305					310					315					320

Asn	Arg	Thr	Leu		Glu	Ser	Ser	Ser		Phe	Tyr	Ser	Gln		Pro
DI <sub>2</sub> -	1	C1	т	325	Dana	Cua	Lau	Dave	330	11.	Dl	1	C1	335	Lua
rne	Leu	Glu		vai	Pro	Cys	Leu		nis	116	rne	Lys		116	Lys
11.	Dlag	Dana	340	Vol.	Lau	Tha	Dha	345	V o 1	A a.m.	C1	C1	350	C1	Thu
116	rne		inr	vai	Leu	ınr		Leu	vai	ASP	GIN		Arg	GIY	inr
C1 .	W . 1	355	1	DI	т	<b>A</b>	360	V - 1	<b>A</b>	1	T1	365	т1.	<b>41</b> -	C
GIY		lyr	Leu	Phe	Tyr		Lys	vai	Arg	Lys		Ala	11e	Ala	Ser
v 1	370	TI		4		375	C1	D.		C .	380	<b>C</b> .	,	DI	n.
	Ser	inr	Leu	Arg	Asn	Asn	Glu	Pro	Asn		GIn	Ser	Lys	Phe	
385	DI		DI	D	390	C	DI		C	395		61		17 1	400
11e	Phe	Arg	Phe		Ser	Ser	Phe	Ser		Pro	val	Gly	Met		Phe
	ь.			405	D.		m.	. 1	410	0.1		0.1	T 1	415	,
HIS	Pro	Arg		HIS	Phe	Leu	lyr		lyr	Gly	Asn	GIn		Irp	Leu
			420	0.1		mı	131	425	,	7.1			430		
Ser	Val		Gly	Gly	Asn	Ihr		GIn	Leu	He	Ala		Phe	HIS	Asp
		435	,	,	TD)	DI	440	6	DI	Tr.	T)	445	. 1	T 1	T)
Asp		He	Lys	Lys	Thr		HIS	Ser	Phe	lyr		Ser	Ala	11e	Ihr
D)	450	0	0.1		0.1	455	., 1	m		mı	460	. 1	0.1		0.1
	Val	Ser	Gln	Arg	Gly	Lys	Val	lyr	Ser		Lys	Ala	GLY	Met	
465	T	C	. 1	N: 7	470	C	1	T)	<i>C</i> 1	475	2.1	DI.	T)	,	480 T
Arg	łyr	Ser	Ala		Gly	Ser	Val	Ihr		Arg	116	Phe	Ihr		lyr
T			,	485	DI	•		,	490	T)	,	C1		495	0.1
lyr	Asp	HIS		Gly	Phe	Leu	H1S		Leu	lhr	Leu	Gly		Phe	Glu
	c	61	500 D	n	TI	4.1	DI	505		C			510	D)	61
Ala	Ser		Pro	Pro	Thr	Ala		Gly	Asn	Ser	Arg		Leu	Phe	GIy
6.1	D	515 D			61	DI	520	TI	. 7	,	4.1	525	C1		TI
GIn		Pro	Asp	Met	Gly		Glu	Ihr	Ala	Leu		Pro	GIn	HIS	Ihr
c	530	,	C1	7.1	11	535	D	. 1	T	17 1	540	61		C1	D
	Leu	Asp	Glu	11e	He	Phe	Pne	Ala	lyr		Pro	61u	Asn	GJu	
545	C I	TI.	7.1	т.	550	,	1	DI	C1	555	7.1	11.7	т.	C1	560
GIN	GIU	Inr	11e		Ser	Lys	Lys	rne		Asn	116	HIS	lyr		Lys
V: 1	11.	н.	C	565	1	TL.	C1.	Α	570	т.	1.1	A	1	575 V-1	
val	116	HIS		GIY	Lys	In)	61 y		Ala	lyr	116	Arg		val	Leu
C1	11.2	ть	580	D	1	C1.	DI	585	C	C	V. 1	11.	590	C1	Mod
om	HIS	1nr 595	ınr	r 1.0	Lys	оту	Fne 600		ser	ser	val	605	ита	011	MEE

Lys	Glu	Pro	Phe	Gly	Leu	Glu	Glu	Val	Asn	Glu	Ser	Ser	Cys	Leu	Ser
	610					615					620				
Ser	Ser	Leu	Leu	Ile	Asn	Lys	Ala	Gly	Asn	Val	Tyr	Lys	Leu	Thr	Leu
625					630					635					640
Asp	Ser	Gln	Val	Val	Gln	Ala	Leu	Phe	Glu	Asp	Thr	Лsp	He	Glu	Lys
				645					650					655	
Thr	Val	Val	Leu	Pro	Gly	Tyr	Ser	Ser	Phe	Leu	Ile	Thr	Ser	He	Leu
			660					665					670		
Asp	Asn	Lys	Asn	Ala	Leu	Ala	He	Ala	Thr	Met	Pro	Glu	Ser	Ala	Pro
		675					680					685			
Asn	Asn	Met	Thr	Phe	Leu	Lys	Ser	Thr	Trp	Phe	Leu	Tyr	Asn	Phe	G1 y
	690					695					700				
Gln	Arg	Asn	Gly	Arg	Thr	Trp	Lys	He	Tyr	Ser	Lys	Pro	Cys	Asn	Tyr
705					710					715					720
Trp	Phe	Gln	His	Asp	Asp	Ser	Pro	Ser	Leu	Asn	He	Val	Lys	Tyr	He
				725					730					735	
Asp	Leu	Gly	Asn	Ser	Tyr	Val	Leu	Lys	Ala	Lys	Val	He	Arg	Asn	Ala
			740					745					750		
Lys	Gly	Phe	Arg	Met	Leu	Glu	He	Pro	Leu	Leu	Thr	Val	Phe	Val	Gly
		755					760					765			
Asn	Pro	Asn	Leu	Leu	Glu	Va]	Thr	Ala	Glu	Val	Thr	Phe	Asp	Asp	Thr
	770					775					780				
Asp	Ser	Tyr	Val	He	Thr	Пе	Ser	Ala	Ala	Ser	Lys	Val	Leu	His	Gln
785					790					795					800
Gly	Ser	Thr	Ser	Leu	Ala	Phe	Пe	Met	Trp	Ser	Ala	Ser	Thr	Glu	Cys
				805					810					815	
Phe	Va]	Thr	Thr	Met	Val	Pro	Thr		Lys	Ser	Ser	Cys	Ser	Tyr	Leu
			820					825					830		
Arg	Ser		His	His	He	Pro		Lys	Phe	He	Pro		Glu	Asp	Trp
		835					840					845			
Пe		Gly	Val	His	Lys		Ser	Gln	Gly	Phe		Leu	lle	Lys	Thr
	850					855					860				
	Pro	He	Asn	Tyr	Arg	Pro	Pro	Ser	Asn		Gly	He	Ala	He	
865					870					875					880
Leu	Thr	Asp	Asn		Tyr	His	Ala	Asp		Ser	Lys	Pro	He		Arg
				885					890					895	

Asn Met Phe His Met Ser Lys Lys Thr Gly Lys Phe Lys Gln Cys Ala Asn Val Ser Thr Arg Glu Glu Cys Asn Cys Thr Lys Asp Gln Lys Phe Ser His Ala Val Ala Phe Ser Asp Cys Arg Glu Lys Val Pro Arg Phe Lys Phe Pro Ile Thr Gln Tyr Pro Val Ser Leu Glu Ile Ile Asn Glu Asp Gly Arg Val Pro Leu Gln Ser Pro Tyr Leu Val Thr Val Thr Glu Val Asn Met Arg His Asn Trp Lys Leu Lys His Thr Val Pro Glu Asn lle Lys Arg Met Lys Gln Leu Val Glu Pro Ile Leu Gly Ala Ala Val Tyr Asn Pro Ser Gly Leu Asn Leu Ser Ile Lys Gly Ser Glu Leu Phe His Phe Arg Val Thr Val Ile Ser Gly Val Thr Phe Cys Asn Leu Ile Glu Glu Phe Gln Ile Tyr Val Asp Gly Ala Pro Leu Pro Phe Pro Gly His Thr Leu IIe Ala Val Ala Thr Ala Val Val Leu Gly Gly Leu IIe Phe Ile Ala Phe Met Phe Gln Leu Gln Gly Ile His Pro Trp Arg Thr Phe Gln Arg Trp Ile Arg Arg Asn Gln Glu Lys Phe Ser Ser Ile Ser Leu Ser Glu Leu 11e His Arg Ser Lys Ser Glu Glu 

<210> 3907

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3907

Met	Arg	His	Arg	Glu	Gly	Ser	Trp	Glu	Pro	Trp	Ser	Arg	Pro	Val	Gly
l				5					10					15	
Glu	Pro	Pro	Glu	Ala	Gly	Trp	Лsр	Tyr	Thr	Gln	Trp	Lys	Gln	Glu	Arg
			20					25					30		
G}u	G1n	He	Asp	Leu	Ala	Arg	Leu	Ala	Arg	His	Arg	Asp	Ala	Gln	Gly
		35					40					45			
Asp	Trp	Arg	Arg	Pro	Trp	Asp	Leu	Лsp	Lys	Ala	Lys	Ser	Thr	Leu	Gln
	50					55					60				
Asp	Cys	Ser	Gln	Leu	Arg	Gly	Glu	Gly	Pro	Ala	Arg	Ala	Gly	Ser	Arg
65					70					75					80
Arg	Gly	Pro	Arg	Ser	His	Gln	Lys	Leu	Gln	Pro	Pro	Pro	Leu	Leu	Pro
				85					90					95	
Asp	Gly	Lys	Gly	Arg	Gly	Gly	Gln	Ala	Asn	Arg	Pro	Ser	Va]	Ala	Pro
			100					105					110		
Ala	Thr		Ser	Lys	Ala	Arg		Lys	Glu	Arg	Leu		Gly	Arg	Ala
		115					120					125			
Arg		Trp	Asp	Met	Lys	Glu	Asp	Lys	Glu	Glu		Glu	Gly	Gln	Glu
	130					135	<b></b>		•	0.1	140	0.1			
	Ser	GIn	Ser	Thr		Glu	Thr	Pro	Ser		Glu	Glu	GIn	Ala	
145	C 1	C	61	<b>.</b>	150	C1	C1		,	155	C	4.1	D	4.1	160
Lys	GIn	Ser	бГу		Glu	Gln	61 y	Arg		61 y	Ser	Ата	Pro		Ala
C	D	A 1	1	165	C	D	C1	C1	170	1	C1	Clar	Can	175	A 1
ser	Pro	АТа	180	Ата	ser	Pro	GIU	185	Pro	Lys	GIŸ	Glu	3er 190	vai	АТа
Sor	Thr	Ala		Sor	Val	Pro	Cvs		Pro	Gln	Chi	Pro		Lou	Ala
361	1111	195	561	261	vai	110	200	361	110	0111	Olu	205	Аэр	Leu	Ма
Pro	Leu		Leu	Ser	Leu	Gly		Ala	Glv	He	Pro		Pro	Arg	Glu
110	210	пор	bea	00,1	150.0	215	GI,	1110	01 )	,110	220	01,	,10	111 5	ord
Ser		Cvs	Val	Leu	Glv	Leu	Arg	Pro	Glv	Ala		Glu	Ser	Pro	Val
225	01)	9,5			230		6			235					240
	Trp	Pro	Glu	Glv		Lys	Gln	Gln	Pro		Glv	Trp	Ser	Asn	
	•			245		·			250					255	
G1n	Ala	Glu	Leu	Glu	Val	Gln	Thr	Cys	Pro	Glu	Pro	Gln	Arg	Gly	Ala
			260					265					270	-	
Gly	Leu	Pro	Glu	Pro	Gly	Glu	Asp	Arg	Ser	Gly	Lys	Ser	Gly	Ala	Gln
		275					280					285			

Gln Gly Leu Ala Pro Arg Ser Arg Pro Thr Arg Gly Gly Ser Gln Arg Ser Arg Gly Thr Ala Gly Val Arg Arg Arg Thr Gly Arg Pro Gly Pro Ala Gly Arg Cvs

<210> 3908

<211> 1012

<212> PRT

<213> Homo sapiens

<400> 3908 Met Met Arg Lys Pro Ser Ser Asp Lys Ile Pro Ser Ile Asp Lys Thr Leu Val Asn Lys Val Val His Ser Ser Val Cys Asn Ile Leu Asn Asp Tyr Gly Ser Gln Asp Ser Ile Trp Lys Asn Ile Asn Ser Asn Gly Glu Asn Leu Ala Arg Arg Leu Thr Ser Ala Val Ile Asn Glu Ile Phe Gln His Gln Val Asn Leu lle Phe Cys Asp Glu Val Ser Val Ser Ala Cys Leu Pro Leu Glu Ser Lys Asp Val Val Lys Lys Val Gln Lys Leu Ala Gln Thr Ala Ser Lys Glu Cys Gln Thr Ser Ser Pro Tyr Thr lle Ile Leu Pro His Lys Phe Leu Glu Asn Val 11e Ser Ala Leu Phe Ser Lys lle Phe Ser Thr lle Ser Ser Thr Lys Glu Pro Glu Asp Asn Leu Ser Thr Glu Leu Asn Phe Leu Gln Met Lys Leu Val Ser Ala Val Ala Thr Glu Ile Ser Gln Asp Lys Tyr Met Thr Ile Gln Tyr Val Glu

Thr	Leu	Gln	Ser	Asp	Asp	Asp	Glu	He	He	Gln	Leu	Val	Val	Gln	Ser
			180					185					190		
Val	Tyr	Asn	Asn	Leu	Leu	Pro	Gln	Phe	Gly	Ser	Gln	Glu	He	He	Gln
		195					200					205			
Asn	Cys	Val	Thr	Ser	Gly	Cys	Lys	lle	Leu	Ser	Glu	Asn	He	Val	Asp
	210					215					220				
Leu	Val	Leu	Arg	Glu	Val	Ala	Ser	Asn	Gln	Leu	Gln	Ser	Tyr	Phe	Cys
225					230					235					240
Gly	Glu	Leu	Thr	Pro	His	Gln	Cys	Val	Glu	Val	Glu	Asn	Ile	Val	Glu
				245					250					255	
Lys	He	Leu	Lys	Asp	Val	Phe	Gln	Thr	Thr	Asp	Val	Pro	Gln	Pro	Lys
			260					265					270		
Pro	Ser	His	Ala	Asp	Lys	Leu	Ser	Tyr	Asn	lle	He	Glu	Glu	He	Ala
		275					280					285			
Val	Lys	Phe	Leu	Ser	Lys	Leu	Leu	Ser	Пе	Phe	Pro	Lys	Va]	His	Lys
	290					295					300				•
Glu	Arg	Thr	Lys	Ser	Leu	Glu	Thr	Asp	Met	Gln	Lys	lle	Thr	Ser	Lys
305					310					315					320
Val	Leu	Asn	Ser	Val	Gln	Glu	Phe	He	Ser	Lys	Ser	Lys	Ile	Lys	Leu
				325					330					335	
Val	Pro	Pro	Thr	Lys	Glu	Ser	Pro	Thr	Val	Pro	Va1	Ala	Asp	Asn	Ala
			340					345					350		
Thr	He		Asn	He	Val	Asn		lle	Tyr	Thr	Ser		Leu	Lys	His
		355					360					365			
Ser	-	Ser	Tyr	Thr	Ser		Phe	Lys	Asp	Leu		Gly	Lys	Ser	Asn
	370					375					380				
	Leu	Ser	Asp	Thr		Gly	Phe	Leu	Met		Asn	Ala	He	Ser	
385					390					395			_		400
Ser	Glu	Phe	Gln		Gln	Val	Glu	Glu		Val	Ser	Asn	Ser		Leu
				405					410					415	
Val	Leu	Glu		Val	Lys	lle	Met		Lys	Val	He	Lys	He	He	Asp
			420					425				٥.	430	773	
Glu	Leu		Ser	Lys	Glu	Lys		Ser	Ser	Arg	Lys		Leu	Thr	Leu
		435					440			_	***	445			
Asp	Ala	Lys	Leu	Leu	Glu	Glu	Va]	Leu	Ala	Leu	Phe	Leu	Ala	Lys	Leu

	450					455					460				
He	Arg	Leu	Pro	Ser	Ser	Ser	Ser	Lys	Asp	Glu	Lys	Asn	Leu	Ser	Lys
465					470					475					480
Thr	Glu	Leu	Asn	Lys	11e	Ala	Ser	G1n	Leu	Ser	Lys	Leu	Val	Thr	Ala
				485					490					495	
Glu	Ile	Ser	Arg	Ser	Ser	He	Ser	Leu	He	Ala	Ser	Asp	Pro	Glu	Glu
			500					505					510		
His	Cys	Leu	Asn	Pro	Glu	Asn	Thr	Glu	Arg	lle	Tyr	Gln	Val	Val	Asp
		515					520					525			
Ser	Val	Tyr	Ser	Asn	11e	Leu	Gln	Gln	Ser	Gly	Thr	Asn	Lys	Glu	Phe
	530					535					540				
Tyr	Tyr	Asp	He	Lys	Asp	Thr	Asn	Thr	Ala	Phe	Pro	Lys	Lys	Val	Ala
545					550					555					560
Ser	Leu	He	He	Asp	Gly	Val	Ser	Ser	Phe	Pro	Leu	Asp	Thr	Пе	Asn
				565					570					575	
Ser	Thr	He	Ser	Asn	Ala	Asp	Leu	Ser	Gly	Glu	Leu	Asp	Val	Asn	Arg
			580					585					590		
He	Val	Gln	Lys	Ala	Gln	Glu	His	Ala	Phe	Asn	Val	lle	Pro	Glu	Leu
		595					600					605			
Glu	Gln	Glu	Lys	Leu	Asp	Gln	Asn	Leu	Ser	Glu	Glu	Glu	Ser	Pro	lle
	610					615					620				
Lys	He	Val	Pro	His	Va]	Gly	Lys	Lys	Pro	Va]	Lys	He	Asp	Pro	
625					630					635					640
11e	lle	Ser	Glu	His	Leu	Ala	Val	He		11e	Lys	Thr	Gln	Pro	Leu
				645					650					655	
Glu	Lys	Leu	Lys	Gln	Glu	Cys	Leu	Lys	Arg	Thr	Gly	His	Ser	He	Ala
			660					665					670		
Glu	Leu		Arg	Ala	Ser	He		Gly	Arg	Asn	Tyr	Ser	Leu	Gly	Ser
		675		_			680					685			
Pro		Leu	Glu	Lys	Arg		Thr	Glu	Arg	Arg		Ser	Leu	Asp	Lys
T)	690		,		V. 7	695	n		<b>61</b>	. 1	700	. 1			C
	Gly	Arg	Leu	Asp		Lys	Pro	Leu	Glu		Val	Ala	Arg	Asn	
705	C 1	Α.	3.1	Α.	710	D.	Δ	7.7	TI	715	V. 1	C1	1.	1	720
rne	oin	nsn	116		Lys	rro	ASP	116		Lys	val	Glu	Leu		LYS
Acr	Vol	Cl <sub>n</sub>	Sor	725	Acr	Acr	Lou	11.	730 Val	Δπα	Lou	Glu	ΔΙα	735	Acr

			740					745					750		
He	Asp	Gln	Val	Tyr	Leu	Glu	Asn	Tyr	Ile	Lys	Glu	Glu	Arg	Asp	Ser
		755					760					765			
Asp	Glu	Asp	Glu	Val	Val	Leu	Thr	Gln	Thr	Phe	Ala	Lys	Glu	Glu	Gly
	770					775					780				
He	Lys	Val	Phe	Glu	Asp	Gln	Va]	Lys	Glu	Val	Lys	Lys	Pro	He	Gln
785					790					795					800
Ser	Lys	Leu	Ser	Pro	Lys	Ser	Thr	Leu	Ser	Thr	Ser	Ser	Leu	Lys	Lys
				805					810					815	
Phe	Leu	Ser	Leu	Ser	Lys	Cys	Cys	Gln	Thr	Thr	Ala	Ser	Ala	Asn	Ιlе
			820					825					830		
Glu	Ser	Thr	Glu	Ala	He	Ser	Asn	Gln	Val	lle	Glu	Ser	Lys	Glu	Thr
		835					840					845			
His	Val	Lys	Arg	Ala	Val	Ala	Glu	Leu	Asp	Met	Ala	Thr	Pro	Lys	Thr
	850					855					860				
Met	Pro	Glu	Thr	Ala	Ser	Ser	Ser	Trp	Glu	Glu	Lys	Pro	Gln	Cys	Lys
865					870					875					880
Lys	Glu	Glu	Lys	Asn	Leu	Val	Thr	Glu	Pro	Thr	His	Tyr	Phe	Ile	His
				885					890					895	
Arg	Ile	Met	Ser	Ser	Ser	Ser	Tyr	Asn	Gln	Glu	Asp	Leu	Ile	Ser	Ser
			900					905					910		
Thr	Gly	Glu	Ala	Glu	Asp	Cys	His	Ser	Asp	Pro	Ser	Ala	Lys	He	Leu
		915					920					925			
Glu	Glu	Ser	Ser	Gln	Glu	Gln	Lys	Pro	Glu	His	Gly	Asn	Ser	Val	Lys
	930					935					940				
Phe	He	Thr	He	Phe	Glu	Arg	Ser	Lys	Asp	Val	Leu	Gly	Ser	Ala	Asn
945					950					955					960
Pro	Ser	Lys	Glu	Val	He	Ser	Glu	Thr	Pro	Lys	Pro	Asp	Val	Ser	Lys
				965					970					975	
Gln	Gly	Ser	Lys	Met	Leu	Thr	Lys	Met	Ser	Ser	Ala	Leu	Ser	Lys	Val
			980					985					990		
Phe	Ser	Gln	Cys	Asn	Thr	Asn	He	Ser	Arg	Ser	Ser	Ser	Pro	Ala	His
		995				]	000				]	005			
Gln	Asp	Glu	His												
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〈211〉 829
<212> PRT
<213> Homo sapiens
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Thr Asn Ile Gly Leu Thr Cys Gln Glu Val Lys Ala Leu Arg Glu Lys
                                 25
Ala Trp Ser Arg Thr Asn Glu Gly Asn Ala Met Ser Gln Ser Leu Val
                             40
lle Tyr Gly Ala Ser Lys Glu Asn Ser Glu Gly Phe His Glu Ser Lys
     50
                         55
                                              60
Met Thr Asn Thr Glu Gly Val Asn Lys Gly Ile Tyr Phe Ser Tyr Pro
                     70
                                          75
Cys Arg Arg His Ser Cys Ala Val Val Asn Ile Pro Ala Pro Cys Val
                 85
                                     90
                                                          95
Asn Lys Met 11e Ser His 11e Gln Asp Val Glu Ser Lys 11e Gln Glu
                                105
His Leu Lys Arg Phe Glu Thr Ser Phe Glu Glu Trp Ser Arg Thr Ser
                            120
Ser Thr Lys Asp Leu Lys Glu Asp Trp Ser Val Thr Thr Pro Val Lys
    130
                        135
                                             140
Glu Val Lys Pro Gly Glu Lys Arg Asp Glu Lys Cys Pro Glu Leu Lys
                    150
                                         155
Gln Glu Met Glu Thr Leu Leu Ser Glu Ala 11e Arg Leu 11e Lys Ser
                165
                                     170
                                                         175
Leu Glu Thr Asp Arg Ala Asp Ala Glu Glu Ala Leu Lys Gln Gln Arg
                                185
Ser Arg Lys Asn Met Ile Asn Met Lys Ile Asp Ser Trp Ser Val Trp
                            200
                                                 205
Lys Leu Gln Glu Leu Pro Leu Ala Val Gln Lys Glu His Glu Ala Tyr
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Leu Ser Asp Val Ile Glu Leu Gln Trp His Leu Glu Asp Lys Ala Asn

225					230					235					240
Gln	Leu	Gln	His	Phe	Glu	Lys	Gln	Lys	Thr	Glu	Leu	Glu	Glu	Ala	Asn
				245					250					255	
Ala	Lys	Пе	Gln	Ala	Asp	11e	Asp	Tyr	Met	Asn	Glu	His	Gly	Pro	Leu
			260					265					270		
Leu	Asp	Ser	Lys	Gln	Asn	Gln	Glu	Leu	Gln	Asp	Leu	Lys	Asn	His	Tyr
		275					280					285			
Lys	Lys	Lys	Met	Glu	Val	Met	Asp	Leu	His	Arg	Lys	Val	Asn	Glu	Glu
	290					295					300				
Leu	Glu	Glu	Ala	Leu	Glu	Ala	Cys	Glu	Asn	Ala	Arg	Leu	Lys	Ala	Gln
305					310					315					320
Gln	He	Lys	Glu	Glu	Ile	Asp	Lys	Asp	lle	Tyr	Gln	Asp	Glu	Lys	Thr
				325					330					335	
Пе	Glu	Ala	Tyr	Lys	Arg	Glu	11e	Tyr	Gln	Leu	Asn	Ser	Leu	Phe	Asp
			340					345					350		
His	Tyr	Ser	Ser	Ser	Val	Ile	Asn	Val	Asn	Thr	Asn	lle	Glu	Glu	Glu
		355					360					365			
Glu	Glu	Glu	Val	Thr	Glu	Ala	Ile	Arg	Glu	Thr	Lys	Ser	Ser	Lys	Asn
	370					375					380				
G1u	Leu	His	Ser	Leu	Ser	Lys	Met	Leu	Glu	Asp	Leu	Arg	Arg	Val	Tyr
385					390					395					400
Asp	Gln	Leu	Thr	Trp	Lys	Gln	Lys	Ser	His	Glu	Asn	Gln	Tyr	Leu	Glu
				405					410					415	
Ala	Va]	Asn	Asp	Phe	Tyr	Ala	Ala	Lys	Lys	Thr	Trp	Asp	lle	Glu	Leu
			420					425					430		
Ser	Asp	Val	Ala	Lys	Asp	Phe	Ser	Ala	lle	Ser	Leu	Ala	Cys	Thr	Lys
		435					440					445			
Leu	Thr	Glu	Asp	Asn	Lys	Lys	Leu	Glu	He	Asp	He	Asn	Lys	He	Thr
	450					455					460				
G] u	Lys	Thr	Asn	Glu	Ser	He	Arg	Lys	Lys	Ser	Lys	Tyr	Glu	Ser	G] u
465					470					475					480
He	Lys	Tyr	Leu	Thr	He	Met	Lys	Leu	Lys	Asn	Asp	Lys	His	Leu	Lys
				485					490					495	
Asn	He	Tyr		Glu	Ala	Tyr	Arg	Пе	Gly	Thr	Leu	Phe	His	Leu	Thr
			500					505					510		
Lve	Hic	lve	Thr	Asn	Glu	Met	G1n	Acn	Lve	He	Ala	$G1\nu$	Val	Ara	Arc

		515					520					525			
Lys	Phe	Lys	Gly	Arg	Glu	Glu	Phe	Leu	Lys	Lys	Leu	Thr	Gln	Gly	Glu
	530					535					540				
Val	Ala	Ala	Gly	Met	Val	Leu	Gln	Lys	Lys	Leu	Tyr	Ser	He	Tyr	Glu
545					550					555					560
Val	Gln	Ala	Leu	Glu	Arg	Lys	Glu	Leu	He	Lys	Asn	Arg	Ala	He	Cys
				565					570					575	
Ala	Met	Ser	Leu	Ala	Glu	Leu	Gln	Glu	Pro	Leu	Leu	Gln	Leu	Glu	Asp
			580					585					590		
Glu	Ala	Glu	Arg	He	Arg	Ser	Leu	Asn	Lys	Glu	His	Ser	Val	Ser	Lys
		595					600					605			
Arg	Ser	Ala	He	Phe	Lys	Asp	Leu	Glu	Ala	Thr	Lys	Ser	Lys	Thr	Met
	610					615					620				
11e	Phe	Tyr	Ala	Lys	He	Asn	Glu	Leu	Asn	Glu	Glu	Leu	Lys	Ala	Lys
625					630					635					640
Glu	Glu	Glu	Lys	Lys	Ser	Phe	Asp	Gln	Thr	Leu	Glu	lle	Leu	Lys	Asn
				645					650					655	
Lys	Phe	Ile	Thr	Met	Arg	Phe	Lys	Arg	Glu	His	Ala	Gln	Thr	Va1	Phe
			660					665					670		
Asp	His	Tyr	Met	Gln	Glu	Lys	Lys	Asp	Cys	Glu	Glu	Arg	lle	Phe	Glu
							680					685			
		675					000								
Glu	Asp		Arg	Phe	Arg	Val		Leu	Ala	Val	Arg	Gln	Lys	Thr	Leu
Glu	Asp 690		Arg	Phe	Arg	Val 695		Leu	Ala	Val	Arg 700	Gln	Lys	Thr	Leu
	690	Gln	Arg Gln			695	Leu				700				
	690	Gln				695	Leu				700				
Gln 705	690 Asp	Gln Thr		Lys	11e 710	695 11e	Leu Ala	Asp	Ser	Leu 715	700 Glu	Glu	Asn	Leu	Arg 720
Gln 705	690 Asp	Gln Thr	Gln	Lys	11e 710	695 11e	Leu Ala	Asp	Ser	Leu 715	700 Glu	Glu	Asn	Leu	Arg 720
61n 705 Leu	690 Asp Ala	Gln Thr Gln	Gln	Lys Tyr 725	11e 710 G1n	695 Ile Gln	Leu Ala Leu	Asp Gln	Ser Phe 730	Leu 715 Thr	700 Glu Phe	Glu Leu	Asn Lys	Leu Glu 735	Arg 720 Lys
61n 705 Leu	690 Asp Ala	Gln Thr Gln	Gln Glu	Lys Tyr 725	11e 710 G1n	695 Ile Gln	Leu Ala Leu	Asp Gln	Ser Phe 730	Leu 715 Thr	700 Glu Phe	Glu Leu	Asn Lys	Leu Glu 735	Arg 720 Lys
Gln 705 Leu Asp	690 Asp Ala Asn	Gln Thr Gln Tyr	Gln Glu Phe	Lys Tyr 725 Asn	11e 710 Gln 11e	695 Ile Gln Tyr	Leu Ala Leu Asp	Asp Gln Lys 745	Ser Phe 730 G1n	Leu 715 Thr Leu	700 Glu Phe Ser	G1u Leu Leu	Asn Lys Asp 750	Leu Glu 735 Thr	Arg 720 Lys Ser
Gln 705 Leu Asp	690 Asp Ala Asn	Gln Thr Gln Tyr	Gln Glu Phe 740	Lys Tyr 725 Asn	11e 710 Gln 11e	695 Ile Gln Tyr	Leu Ala Leu Asp	Asp Gln Lys 745	Ser Phe 730 G1n	Leu 715 Thr Leu	700 Glu Phe Ser	G1u Leu Leu	Asn Lys Asp 750	Leu Glu 735 Thr	Arg 720 Lys Ser
Gln 705 Leu Asp	690 Asp Ala Asn Arg	Gln Thr Gln Tyr Asp 755	Gln Glu Phe 740	Lys Tyr 725 Asn Lys	11e 710 Gln 11e Gln	695 Ile Gln Tyr Leu	Leu Ala Leu Asp Cys 760	Asp Gln Lys 745 Gln	Ser Phe 730 G1n Leu	Leu 715 Thr Leu G1n	700 Glu Phe Ser Arg	Glu Leu Leu Arg 765	Asn Lys Asp 750 Met	Leu Glu 735 Thr	Arg 720 Lys Ser
G1n 705 Leu Asp 11e Leu	690 Asp Ala Asn Arg Trp 770	Gln Thr Gln Tyr Asp 755 Gln	Glu Phe 740 Lys Glu	Lys Tyr 725 Asn Lys	11e 710 Gln 11e Gln Phe	695 Jle Gln Tyr Leu Lys 775	Leu Ala Leu Asp Cys 760 Leu	Asp Gln Lys 745 Gln Val	Ser Phe 730 Gln Leu Val	Leu 715 Thr Leu Gln	700 Glu Phe Ser Arg Phe 780	Glu Leu Leu Arg 765 Ser	Asn Lys Asp 750 Met	Leu Glu 735 Thr His	Arg 720 Lys Ser Thr
G1n 705 Leu Asp 11e Leu	690 Asp Ala Asn Arg Trp 770	Gln Thr Gln Tyr Asp 755 Gln	Gln Glu Phe 740 Lys	Lys Tyr 725 Asn Lys	11e 710 Gln 11e Gln Phe	695 Jle Gln Tyr Leu Lys 775	Leu Ala Leu Asp Cys 760 Leu	Asp Gln Lys 745 Gln Val	Ser Phe 730 Gln Leu Val	Leu 715 Thr Leu Gln Leu	700 Glu Phe Ser Arg Phe 780	Glu Leu Leu Arg 765 Ser	Asn Lys Asp 750 Met	Leu Glu 735 Thr His	Arg 720 Lys Ser Thr
G1n 705 Leu Asp 11e Leu Leu 785	Asp Ala Asn Arg Trp 770 Ala	Gln Thr Gln Tyr Asp 755 Gln Asn	Glu Phe 740 Lys Glu	Lys Tyr 725 Asn Lys His	11e 710 G1n 11e G1n Phe Thr 790	695 Ile Gln Tyr Leu Lys 775 Asp	Leu Ala Leu Asp Cys 760 Leu Ser	Asp Gln Lys 745 Gln Val	Ser Phe 730 Gln Leu Val	Leu 715 Thr Leu Gln Leu Ser 795	700 Glu Phe Ser Arg Phe 780 Ile	Glu Leu Leu Arg 765 Ser Gln	Asn Lys Asp 750 Met Gln Lys	Leu Glu 735 Thr His Met	Arg 720 Lys Ser Thr Arg Leu 800

805 810 815

Phe Gln Thr Leu Thr Asp Gly Thr Cys Glu Asn Asp Gly
820 825

<210> 3910

<211> 214

<212> PRT

<213> Homo sapiens

<400> 3910

Met Ala Ala Leu Cys Leu Arg Lys Gly Pro Leu Pro Leu Cys Pro Arg

1 5 10 15

Pro Ser His Gly Leu Lys Ala Met Gly Gly Glu Gly Ser Cys Gln Asp 20 25 30

Asp Thr Glu Ser Gly Ala Leu Thr Phe Leu Pro Ser Asp Asp Ala Gln 35 40 45

Pro Gly Lys Ala Leu Arg Pro Gln Arg Ser Gly Pro Gly Gly Ser Glu 50 55 60

Arg Arg Gly Arg Gly Trp Gly Arg Ala Gly Ala Leu Glu Glu Gln Val 65 70 75 80

Arg Gln Gly Pro Ser Ala Gln Gly His Pro Arg Thr Gln Ala Arg Ser 85 90 95

Arg Pro Cys Ser Ala Arg Pro His Cys Ser Cys Gly Lys Gly Lys His 100 105 110

Gly Ala Leu Pro Gln Gly Gln Cys Ser Ala Trp Leu Glu Leu Met Thr
115 120 125

Val Thr Val Pro Cys Cys His His Cys Ser His Cys Pro Gly Gln 130 · 135 140

Pro Gly Pro Gln Leu His Arg Ala Trp Thr Val Trp Ser Trp Ala Val 145 150 155 160

Pro Ser Ser Ala Ser Arg Ala Cys Gly Asp Gly His Arg Arg Ser Thr

165 170 175

Cys Gln Ala Gln Gly Ser Cys Thr Gly Leu Pro Pro Leu Arg Gly Cys 180 185 190

Leu Pro Arg Leu Val Pro Gly Arg Pro Cys Pro His Leu Arg Gln Gln

Asp Lys Gly Lys Trp Asn <210> 3911 <211> 950 <212> PRT <213> Homo sapiens <400> 3911 Met Glu Asp Lys Leu His Lys Arg Ser Pro Pro Pro Glu Thr Ile Lys Ser Lys Leu Asn Thr Ser Val Asp Thr His Lys Ile Lys Ser Ser Pro Ser Pro Glu Val Val Lys Pro Lys lle Thr His Ser Pro Asp Ser Val Lys Ser Lys Ala Thr Tyr Val Asn Ser Gln Ala Thr Gly Glu Arg Arg Leu Ala Asn Lys Ile Glu His Glu Leu Ser Arg Cys Ser Phe His Pro lle Pro Thr Arg Ser Ser Thr Leu Glu Thr Thr Lys Ser Pro Leu lle lle Asp Lys Asn Glu His Phe Thr Val Tyr Arg Asp Pro Ala Leu lle Gly Ser Glu Thr Gly Ala Asn His Ile Ser Pro Phe Leu Ser Gln His Pro Phe Pro Leu His Ser Ser Ser His Arg Thr Cys Leu Asn Pro Gly Thr His His Pro Ala Leu Thr Pro Ala Pro His Leu Leu Ala Gly Ser Ser Ser Gln Thr Pro Leu Pro Thr Ile Asn Thr His Pro Leu Thr Ser 

Gly Pro His His Ala Val His His Pro His Leu Leu Pro Thr Val Leu

Pro	Gly	Val	Pro	Thr	Ala	Ser	Leu	Leu	Gly	Gly	His	Pro	Arg	Leu	Glu
		195					200					205			
Ser	Ala	His	Ala	Ser	Ser	Leu	Ser	His	Leu	Ala	Leu	Ala	His	Gln	Gln
	210					215					220				
Gln	G1n	Gln	Leu	Leu	Gln	His	Gln	Ser	Pro	His	Leu	Leu	Gly	G]n	Ala
225					230					235					240
His	Pro	Ser	Ala	Ser	Tyr	Asn	Gln	Leu	Gly	Leu	Tyr	Pro	He	He	Trp
				245					250					255	
Gln	Tyr	Pro	Asn	Gly	Thr	His	Ala	Tyr	Ser	Gly	Leu	Gly	Leu	Pro	Ser
			260					265					270		
Ser	Lys	Trp	Val	His	Pro	Glu	Asn	Ala	Val	Asn	Ala	Glu	Ala	Ser	Leu
		275					280					285			
Λrg	Arg	Asn	Ser	Pro	Ser	Pro	Trp	Leu	His	Gln	Pro	Thr	Pro	Val	Thr
	290					295					300				
Ser	Ala	Asp	Gly	He	Gly	Leu	Leu	Ser	His	He	Pro	Val	Arg	Pro	Ser
305					310					315					320
Ser	Ala	Glu	Pro	His	Arg	Pro	Leu	Lys	Ile	Thr	Ala	His	Ser	Ser	Pro
				325					330					335	
Pro	Leu	Thr	Lys	Thr	Leu	Val	Asp	His	His	Lys	Glu	Glu	Leu	Glu	Arg
			340					345					350		
Lys	Ala	Phe	Met	Glu	Pro	Leu	Arg	Ser	Val	Ala	Ser	Thr	Ser	Ala	Lys
		355					360					365			
Asn	Asp	Leu	Asp	Leu	Asn	Arg	Ser	Gln	Thr	Gly	Lys	Asp	Cys	His	Leu
	370					375					380				
His	Arg	His	Phe	Val	Asp	Pro	Val	Leu	Asn	Gln	Leu	Gln	Arg	Pro	Pro
385					390					395					400
Gln	Glu	Thr	Gly	Glu	Arg	Leu	Asn	Lys		Lys	Glu	Glu	His	Arg	Arg
				405					410					415	
lle	Leu	Gln	Glu	Ser	lle	Asp	Val	Ala	Pro	Phe	Thr	Thr	Lys	He	Lys
			420					425					430		
Gly	Leu	Glu	G]y	Glu	Arg	Glu	Asn	Tyr	Ser	Arg	Va]	Ala	Ser	Ser	Ser
		435					440					445			
Ser	Ser	Pro	Lys	Ser	His	He	He	Lys	Gln	Asp	Met	Asp	Val	Glu	Arg
	450					455					460				
	Val	Ser	Asp	Leu	Tyr	Lys	Met	Lys	His	Ser	Val	Pro	Gln	Ser	Leu
465					470					475					480

Pro	Gln	Ser	Asn	Tyr	Phe	Thr	Thr	Leu	Ser	Asn	Ser	Val	Val	Asn	Glu
				485					490					495	
Pro	Pro	Arg	Ser	Tyr	Pro	Ser	Lys	Glu	Val	Ser	Asn	He	Tyr	Gly	Asp
			500					505					510		
Lys	Gln	Ser	Asn	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asn	Pro	Gln	Thr	Leu
		515					520					525			
Thr	Ser	Phe	lle	Thr	Ser	Leu	Ser	Lys	Pro	Pro	Pro	Leu	He	Lys	His
	530					535					540				
G1n	Pro	Glu	Ser	Glu	Gly	Leu	Val	Gly	Lys	Ile	Pro	Glu	His	Leu	Pro
545					550					555					560
His	Gln	Ile	Ala	Ser	His	Ser	Val	Thr	Thr	Phe	Arg	Asn	Asp	Cys	Arg
				565					570					575	
Ser	Pro	Thr	His	Leu	Thr	Val	Ser	Ser	Thr	Asn	Thr	Leu	Arg	Ser	Met
			580					585					590		
Pro	Ala	Leu	His	Arg	Ala	Pro	Val	Phe	His	Pro	Pro	He	His	His	Ser
		595					600					605			
Leu	Glu	Arg	Lys	Glu	Gly	Ser	Tyr	Ser	Ser	Leu	Ser	Pro	Pro	Thr	Leu
	610					615					620				
Thr	Pro	Val	Met	Pro	Val	Asn	Ala	Gly	Gly	Lys	Val	Gln	Glu	Ser	Gln
625					630					635					640
Lys	Pro	Pro	Thr	Leu	Ile	Pro	Glu	Pro	Lys	Asp	Ser	Gln	Ala	Asn	Phe
				645					650					655	
Lys	Ser	Ser	Ser	Glu	Gln	Ser	Leu	Thr	Glu	Met	Trp	Arg	Pro	Asn	Asn
			660					665					670		
Asn	Leu	Ser	Lys	Glu	Lys	Thr	Glu	Trp	His	Va]	Glu	Lys	Ser	Ser	Gly
		675					680					685			
Lys	Leu	Gln	Ala	Ala	Met	Ala	Ser	Val	Ile	Val	Arg	Pro	Ser	Ser	Ser
	690					695					700				
Thr	Lys	Thr	Asp	Ser	Met	Pro	Ala	Met	Gln	Leu	Ala	Ser	Lys	Asp	Arg
705					710					715					720
Val	Ser	Glu	Arg	Ser	Ser	Ala	Gly	Ala	His	Lys	Thr	Asp	Cys	Leu	Lys
				725					730					735	
Leu	Ala	Glu	Ala	61 y	Glu	Thr	Gly	Arg	lle	He	Leu	Pro	Asn	Val	Asn
			740					745					750		
Ser	Asp	Ser	Val	His	Thr	Lys	Ser	Glu	Lys	Asn	Phe	Gln	Ala	Val	Ser
		755					760					765			

Gln Gly Ser Val Pro Ser Ser Val Met Ser Ala Val Asn Thr Met Cys Asn Thr Lys Thr Asp Val Ile Thr Ser Ala Ala Asp Thr Thr Ser Val Ser Ser Trp Gly Gly Ser Glu Val Ile Ser Ser Leu Ser Asn Thr Ile Leu Ala Ser Thr Ser Ser Glu Cys Val Ser Ser Lys Ser Val Ser Gln Pro Val Ala Gln Lys Gln Glu Cys Lys Val Ser Thr Thr Ala Pro Val Thr Leu Ala Ser Ser Lys Thr Gly Ser Val Val Gln Pro Ser Ser Gly Phe Ser Gly Thr Thr Asp Phe 11e His Leu Lys Lys His Lys Ala Ala Leu Ala Ala Ala Gln Tyr Lys Ser Ser Asn Ala Ser Glu Thr Glu Pro Asn Ala Ile Lys Asn Gln Thr Leu Ser Ala Ser Leu Pro Leu Asp Ser Thr Val Ile Cys Ser Thr Ile Asn Lys Ala Asn Ser Val Gly Asn Gly Gln Ala Ser Gln Thr Ser Gln Pro Asn Tyr His Thr Lys Leu Lys Lys Ala Trp Leu Thr Arg His 

<210> 3912

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3912

Met 11e Ser Val His Cys Asn Leu Cys Leu Pro Gly Ser Ser Asn Phe

1 5 10 15

Cys Ala Ser Ala Ser Arg Val Ala Gly 11e Thr Gly Met His His His His

20 25 30

<210> 3913

<211> 265

<212> PRT

<213> Homo sapiens

<400> 3913

130

Met Arg Asp Leu Gly Glu Asn Thr Ala Ser Arg Arg Asn Ala Pro Ala 5 10 His Pro Ser Arg Asn Pro His His Leu Pro Pro Thr Pro Asp Gln Ser 25 Ser Arg Arg Pro Gly Val Ser His Gln Arg Ala Glu Arg Ala Phe Glu 35 40 45 Leu Leu His His Asp Gln Asp Ala Leu Gly His Leu Val His Val 55 Cys Val His Gln Ser Cys Ser Glu Ser Pro Gln Gly Leu Phe His Asp 70 Ala His Pro Gly Val Thr Leu Thr Leu Gly Gln Glu Glu Lys Ala Cys 90 85 95 Pro Glu Asp Ser Ala Ser Ser Ser Ser Ser Leu Pro Ala Pro Ser Val 105 Leu Gly Ala His Thr Gly Val Gly Pro Gln Ala Gly Gly His Val Pro 115 120 125 Gly Trp Gln Asp Leu Ser Thr Val Lys Leu Asp Ala Pro Ala Gly Pro

135

Val Leu Pro Ala Arg Ile Pro Leu Pro Gln Asp Ala Leu His Thr Leu Arg Ile Pro Ser Arg Cys Ser Gly Ala Cys Thr Glu Gly Leu Gly Pro Ala Pro Gly Asn Ser Lys Glu Ala Asn Gly Phe Met Ser Arg Phe Cys Gln Ile Ala Ser Glu Ala Ala Leu Phe Ala Val Ala Ala Glu Cys Arg Ala Gly His Leu Ser Gly Gln Ser Gly Ala Leu Leu Pro Cys Ile Ser Trp Ala Met Arg Gly Asp Leu Cys Pro Leu His Arg Ser Cys Val Pro Cys Ala Cys Asp Arg Val Phe Pro Val Tyr Ser Met Leu Leu His Val Phe Gln Phe Arg Phe Val Val Cys Glu 

<210> 3914

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3914

Met Ser Thr Val Gly Leu Phe His Phe Pro Thr Pro Leu Thr Arg 11e Cys Pro Ala Pro Trp Gly Leu Arg Leu Trp Glu Lys Leu Thr Leu Leu Ser Pro Gly Ile Ala Val Thr Pro Val Gln Met Ala Gly Lys Lys Asp · Tyr Pro Ala Leu Leu Ser Leu Asp Glu Asn Glu Leu Glu Glu Gln Phe Val Lys Gly His Gly Pro Gly Gly Gln Ala Thr Asn Lys Thr Ser Asn Cys Val Val Leu Lys His 11e Pro Ser Gly 11e Val Val Lys Cys His 

<210> 3915

<211> 297

<212> PRT

<213> Homo sapiens

<400> 3915 Met Tyr Ile Ser Pro Pro Lys Asp Trp Trp Asp Ala Gly Asp Pro Ser Leu Pro Ile Arg Thr Pro Ala Met lle Gly Cys Ser Phe Val Val Asn Arg Lys Phe Phe Gly Glu Ile Gly Leu Leu Asp Pro Gly Met Asp Val Tyr Gly Gly Glu Asn lle Glu Leu Gly lle Lys Val Trp Leu Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile Glu Arg Lys Lys Lys Pro Tyr Asn Ser Asn Ile Gly Phe Tyr Thr Lys Arg Asn Ala Leu Arg Val Ala Glu Val Trp Met Asp Asp Tyr Lys Ser His Val Tyr lle Ala Trp Asn Leu Pro Leu Glu Asn Pro Gly lle Asp lle Gly Asp Val Ser Glu Arg Arg Ala Leu Arg Lys Ser Leu Lys Cys Lys Asn Phe Gln Trp Tyr Leu Asp His Val Tyr Pro Glu Met Arg Arg Tyr Asn 

Asn Thr Val Ala Tyr Gly Glu Leu Arg Asn Asn Lys Ala Lys Asp Val

Cys Leu Asp Gln Gly Pro Leu Glu Asn His Thr Ala Ile Leu Tyr Pro Cys His Gly Trp Gly Pro Gln Leu Ala Arg Tyr Thr Lys Glu Gly Phe Leu His Leu Gly Ala Leu Gly Thr Thr Thr Leu Leu Pro Asp Thr Arg Cys Leu Val Asp Asn Ser Lys Ser Arg Leu Pro Gln Leu Leu Asp Cys Asp Lys Val Lys Ser Ser Leu Tyr Lys Arg Trp Asn Phe Ile Gln Asn Gly Ala Ile Met Asn Lys Gly Thr Gly Arg Cys Leu Glu Val Glu Asn Arg Gly Leu Ala Gly Ile Asp Leu Ile Leu Arg Ser Cys Thr Gly Gln Arg Trp Thr Ile Lys Asn Ser Ile Lys 

<210> 3916

<211> 978

<212> PRT

<213> Homo sapiens

<400> 3916

Met Ala Val Lys Thr Ser Glu Val Met Ala Gln Leu Thr Glu Ser Arg Gln Ser 11e Leu Lys Leu Glu Ser Glu Leu Glu Asn Lys Asp Glu 11e Leu Arg Asp Lys Phe Ser Leu Met Asn Glu Asn Arg Glu Leu Lys Val Arg Val Ala Ala Gln Asn Glu Arg Leu Asp Leu Cys Gln Gln Glu Ile Glu Ser Ser Arg Val Glu Leu Arg Ser Leu Glu Lys Ile Ile Ser Gln Leu Pro Leu Lys Arg Glu Leu Phe Gly Phe Lys Ser Tyr Leu Ser Lys 

Tyr	Gln	Met	Ser 100	Ser	Phe	Ser	Asn	Lys 105	Glu	Asp	Arg	Cys	Ile 110	Gly	Cys
Cys	Glu	Ala	Asn	Lys	Leu	Val	He	Ser	Glu	Leu	Arg	He	Lys	Leu	Ala
		115					120					125			
He	Lys	Glu	Λla	Glu	lle	Gln	Lys	Leu	His	Ala	Asn	Leu	Thr	Ala	Asn
	130					135					140				
Gln	Leu	Ser	Gln	Ser	Leu	He	Thr	Cys	Asn	Asp	Ser	Gln	Glu	Ser	Ser
145					150					155					160
Lys	Leu	Ser	Ser	Leu	Glu	Thr	Glu	Pro	Val	Lys	Leu	Gly	G1 y	His	Gln
				165					170					175	
Val	Ala	Glu		Va]	Lys	Asp	Gln		GIn	His	Thr	Met	Asn	Lys	Gln
_			180					185					190		
Tyr	Glu		Glu	Arg	Gln	Arg		Val	Thr	Gly	He		Glu	Leu	Arg
TI.		195	71.	61	11.	C1	200	C1	Δ	C		205	,	V 1	
Ihr		Leu	11e	GIn	He		Ala	Glu	Asn	Ser		Leu	Lys	val	Asn
Mot	210	Hic	Ara	Thr	Sor	215	Pho	Gln	Lou	Ho	220	Glu	Glu	Lou	Lou
225	nia	1113	AI g	1 111	230	OIII	THE	0111	Leu	235	OIII	Olu	Olu	Leu	240
	Lvs	Ala	Ser	Asn		Ser	Lvs	Leu	Glu		Glu	Met	Thr	Lvs	
	Ĭ			245					250					255	•
Cys	Ser	Gln	Leu	Leu	Thr	Leu	Glu	Lys	Gln	Leu	Glu	Glu	Lys	He	Va]
			260					265					270		
Ala	Tyr	Ser	Ser	He	Ala	Ala	Lys	Asn	Ala	Glu	Leu	Glu	Gln	Glu	Leu
		275					280					285			
Met	Glu	Lys	Asn	Glu	Lys	He	Arg	Ser	Leu	Glu	Thr	Asn	lle	Asn	Thr
	290					295					300				
Glu	His	Glu	Lys	lle	Cys	Leu	Ala	Phe	Glu	Lys	Ala	Lys	Lys	He	His
305					310					315					320
Leu	Glu	Gln	His		Glu	Met	Glu	Lys		lle	Glu	Arg	Leu	Glu	Ala
				325					330					335	
Gln	Leu	Glu		Lys	Asp	Gln	GIn		Lys	Glu	Gln	Glu	Lys	Thr	Met
C	14 .	,	340	C1				345	,	C1		11.	350	C 1	C
ser	met		σIn	GIN	Asp	116		Cys	Lys	ыn	H1S		Leu	61 <b>u</b>	ser
Leu	Acn	355	Lou	Lou	Thr	Clas	360	Lvc	Clv	61	Mot	365	Lys	Glo	Acr
Leu	370	m g	เวสน	Leu	1111	375	561	1.75	OIÀ	Olu	380	Lyo	Lys	Gju	11011

Met 385	Lys	Lys	Asp	Glu	Ala 390	Leu	Lys	Ala	Leu	Gln 395	Asn	Gln	Val	Ser	Glu 400
Glu	Thr	He	Lys	Val 405	Arg	Gln	Leu	Asp	Ser 410	Ala	Leu	Glu	lle	Cys 415	Lys
Glu	Glu	Leu	Val 420	Leu	His	Leu	Asn	G1n 425	Leu	Glu	Gly	Asn	Lys 430	Glu	Lys
Phe	Glu	Lys 435	Gln	Leu	Lys	Lys	Lys 440	Ser	Glu	Glu	Val	Tyr 445	Cys	Leu	Gln
Lys	Glu 450	Leu	Lys	He	Lys	Asn 455	His	Ser	Leu	Gln	Glu 460	Thr	Ser	Glu	G1n
Asn 465	Val	He	Leu	Gln	His 470	Thr	Leu	Gln	Gln	Gln 475	Gln	Gln	Met	Leu	Gln 480
Gln	Glu	Thr	He	Arg 485	Asn	Gly	Glu	Leu	Glu 490	Asp	Thr	Gln	Thr	Lys 495	Leu
Glu	Lys	Gln	Val 500	Ser	Lys	Leu	Glu	Gln 505	Glu	Leu	Gln	Lys	Gln 510	Arg	Glu
Ser	Ser	Ala 515	Glu	Lys	Leu	Arg	Lys 520	Met	Glu	Glu	Lys	Cys 525	Glu	Ser	Ala
Ala	His 530	Glu	Ala	Asp	Leu	Lys 535	Arg	Gln	Lys	Val	11e 540	Glu	Leu	Thr	Gly
Thr 545	Ala	Arg	Gln	Val	Lys 550	Ile	Glu	Met	Asp	G1n 555	Tyr	Lys	Glu	Glu	Leu 560
Ser	Lys	Met	Glu	Lys 565	Glu	lle	Met	His	Leu 570	Lys	Arg	Asp	G1 y	Glu 575	Asn
Lys	Ala	Met	His 580	Phe	Ser	Gln	Leu	Asp 585	Met	lle	Leu	Asp	G1n 590	Thr	Lys
Thr	Glu	Leu 595	Glu	Lys	Lys	Thr	Asn 600	Ala	Va]	Lys	Glu	Leu 605	Glu	Lys	Leu
Gln	His 610	Ser	Thr	Glu	Thr	Glu 615	Leu	Thr	Glu	Ala	Leu 620	G1n	Lys	Arg	Glu
Val 625	Leu	G1u	Thr	Glu	Leu 630	Gln	Asn	Ala	His	Gly 635	Glu	Leu	Lys	Ser	Thr 640
Leu	Arg	Gln	Leu	Gln 645	Glu	Leu	Arg	Asp	Val 650	Leu	Gln	Lys	Ala	G1n 655	Leu
Ser	Leu	Glu	Glu 660	Lys	Tyr	Thr	Thr	11e 665	Lys	Asp	Leu	Thr	Ala 670	Glu	Leu

Arg	Glu	Cys	Lys	Met	Glu	Ile	Glu	Asp	Glu	Lys	Gln	Glu	Leu	Leu	Glu
		675					680					685			
Met	Asp	Gln	Ala	Leu	Lys	Glu	Arg	Asn	Trp	Glu	Leu	Lys	Gln	Arg	Ala
	690					695					700				
Ala	Gln	Val	Thr	His	Leu	Asp	Met	Thr	lle	Arg	Glu	His	Arg	Gly	Glu
705					710					715					720
Met	Glu	Gln	Lys	Ile	He	Lys	Leu	Glu	Gly	Thr	Leu	Glu	Lys	Ser	Glu
				725					730					735	
Leu	Glu	Leu	Lys	Glu	Cys	Asn	Lys	Gln	Ile	Glu	Ser	Leu	Asn	Asp	Lys
			740					745					750		
Leu	Gln	Asn	Ala	Lys	Glu	Gln	Leu	Arg	Glu	Lys	Glu	Phe	He	Met	Leu
		755					760					765			
Gln	Asn	Glu	Gln	Glu	He	Ser	Gln	Leu	Lys	Lys	Glu	He	Glu	Arg	Thr
	770					775					780				
Gln	Gln	Arg	Met	Lys	Glu	Met	Glu	Ser	Val	Met	Lys	Glu	Gln	Glu	Gln
785					790					795					800
Tyr	Ile	Ala	Thr	Gln	Cys	Lys	Glu	Ala	Ile	Asp	Leu	Gly	Gln	Lys	Leu
				805					810					815	
Arg	Leu	Thr	Arg	Glu	Gln	Val	Gln	Asn	Ser	His	Thr	Glu	Leu	Ala	Glu
			820					825					830		
Ala	Arg		Gln	Gln	Val	Gln		G]n	Arg	Glu	He	Glu	Arg	Leu	Ser
		835					840					845			
Ser		Leu	Glu	Asp	Met		Gln	Leu	Ser	Lys		Lys	Asp	Ala	His
	850					855					860				
	Asn	His	Leu	Ala	Glu	Glu	Leu	Gly	Ala		Lys	Val	Arg	Glu	
865					870					875	_				880
His	Leu	Glu	Ala		Met	GIn	Ala	Glu		Lys	Lys	Leu	Ser		Glu
., .	<b>61</b>			885	6.1		<i>a</i> v	,,,	890	0.1				895	0.1
Val	Glu	Ser		Lys	Glu	Ala	lyr		Met	Glu	Met	He		His	GIn
C1	<b>A</b>	112 .	900	1	т.		11	905	41.	Α.	c	C1	910	C	C
610	Asn		Ala	Lys	Trp	Lys		ser	Ala	Asp	Ser		Lys	Ser	ser
V = 1	C1	915	1	Λ	C1	C1	920	C1	1	A1.		925	C1	1	C1
vai	930	GIN	Leu	ASN	Glu	935	Leu	oru	Lys	на	Lys 940	Leu	61 <b>u</b>	Leu	U LU
GJ <sub>22</sub>		Cln	Acr	Thr	Val		Acn	Lov	Нic	Cl.		Vol	C1 5	Acr	A 25.00
945	nia	OIII	ush	1111	Val 950	Se1.	M\$II	ren	1115	955	OIII	val	0111	nsp	760 Arg
J-1-J					550					555					200

Asn Glu Val Ile Glu Ala Ala Asn Glu Ala Leu Leu Thr Lys Gly Glu 965 970 975 Asn Val

<210> 3917

<211> 874

<212> PRT

<213> Homo sapiens

<400> 3917

Met Ser Asp Gly Lys Val Gly Glu Ser Ser Lys Lys Ser Glu Ile Lys

1 5 10 15

Glu Ile Glu Tyr Thr Lys Leu Lys Lys Ser Lys Ile Glu Asp Ala Phe 20 25 30

Ser Lys Glu Gly Lys Ser Asp Val Leu Leu Lys Leu Val Leu Glu Gln
35 40 45

Gly Asp Ser Ser Glu Ile Leu Ser Lys Lys Asp Leu Pro Leu Asp Ser 50 55 60

Glu Asn Val Gln Lys Asp Leu Val Gly Leu Ala Ile Glu Asn Leu His
65 70 75 80

Lys Ser Glu Glu Met Leu Lys Glu Arg Gln Ser Asp Gln Asp Met Asn 85 90 95

His Ser Pro Asn Ile Gln Ser Gly Lys Asp Ile His Glu Gln Lys Asn 100 105 110

Thr Lys Glu Lys Asp Leu Ser Trp Ser Glu His Leu Phe Ala Pro Lys
115 120 125

Glu Ile Pro Tyr Ser Glu Asp Phe Glu Val Ser Ser Phe Lys Lys Glu 130 135 140

Ile Ser Ala Glu Leu Tyr Lys Asp Asp Phe Glu Val Ser Ser Leu Leu 145 150 155 160

Ser Leu Arg Lys Asp Ser Gln Ser Cys Arg Asp Lys Pro Gln Pro Met 165 170 175

Arg Ser Ser Thr Ser Gly Ala Thr Ser Phe Gly Ser Asn Glu Glu 11e 180 185 190

Ser	Glu	Cys	Leu	Ser	Glu	Lys	Ser	Leu	Ser	He	His	Ser	Asn	Val	His
		195					200					205			
Ser	Asp	Arg	Leu	Leu	Glu	Leu	Lys	Ser	Pro	Thr	Glu	Leu	Met	Lys	Ser
	210					215					220				
Glu	Glu	Arg	Ser	Asp	Val	Glu	His	Glu	Gln	Gln	Val	Thr	Glu	Ser	Pro
225					230					235					240
Ser	Leu	Ala	Ser	Val	Pro	Thr	Ala	Asp	Glu	Leu	Phe	Asp	Phe	His	lle
				245					250					255	
Gly	Asp	Arg	Val	Leu	lle	Gly	Asn	Val	Gln	Pro	Gly	Ile	Leu	Arg	Phe
			260					265					270		
Lys	Gly	Glu	Thr	Ser	Phe	Ala	Lys	Gly	Phe	Trp	Ala	Gly	Val	Glu	Leu
		275					280					285			
Лѕр	Lys	Pro	Glu	Gly	Asn	Asn	Asn	Gly	Thr	Tyr	Asp	Gly	lle	Ala	Tyr
	290					295					300				
Phe	G1u	Cys	Lys	Glu	Lys	His	Gly	He	Phe	Ala	Pro	Pro	Gln	Lys	He
305					310					315					320
Ser	His	lle	Pro	Glu	Asn	Phe	Asp	Asp	Tyr	Val	Asp	lle	Asn	Glu	Asp
				325					330					335	
Glu	Asp	Cys	Tyr	Ser	Asp	Glu	Arg	Tyr	Gln	Cys	Tyr	Asn	Gln	Glu	Gln
			340					345					350		
Asn	Asp	Thr	Glu	Gly	Pro	Lys	Asp	Arg	Glu	Lys	Asp	Val	Ser	Glu	Tyr
		355					360					365			
Phe	Tyr	Glu	Lys	Ser	Leu	Pro	Ser	Val	Asn	Asp	He	Glu	Ala	Ser	Val
	370					375					380				
Asn	Arg	Ser	Arg	Ser	Leu	Lys	He	Glu	Thr	Asp	Asn	Val	Gln	Asp	Пе
385					390					395					400
Ser	Gly	Val	Leu		Ala	His	Val	His	Gln	Gln	Ser	Ser	Val	Asp	Ser
				405					410					415	
Gln	He	Ser	Ser	Lys	Glu	Asn	Lys	Asp	Leu	He	Ser	Asp	Ala	Thr	Glu
			420					425					430		
Lys	Val		lle	Ala	Ala	Glu	Asp	Asp	Thr	Leu	Asp	Asn	Thr	Phe	Ser
		435					440					445			
Glu		Leu	Glu	Lys	Gln		Gln	Phe	Thr	Glu	Glu	Glu	Asp	Asn	Leu
	450					455					460				
	Ala	Glu	Ala	Ser	Glu	Lys	Leu	Cys	Thr	Pro	Leu	Leu	Asp	Leu	Leu
465					470					475					480

Thr	Arg	Glu	Lys	Asn	Gln	Leu	Glu	Ala	Gln	Leu	Lys	Ser	Ser	Leu	Asn
				485					490					495	
Glu	Glu	Lys	Lys	Ser	Lys	Gln	Gln	Leu	Glu	Lys	Ile	Ser	Leu	Leu	Thr
			500					505					510		
Asp	Ser	Leu	Leu	Lys	Val	Phe	Val	Lys	Asp	Thr	Val	Asn	Gln	Leu	Gln
		515					520					525			
Gln	Ile	Lys	Lys	Thr	Arg	Asp	Glu	Lys	He	Gln	Leu	Ser	Asn	Gln	Glu
	530					535					540				
Leu	Leu	Gly	Asp	Asp	Gln	Lys	Lys	Val	Thr	Pro	Gln	Asp	Leu	Ser	Gln
545					550					555					560
Asn	Val	Glu	Glu	Gln	Ser	Pro	Ser	Ile	Ser	Gly	Cys	Phe	Leu	Ser	Ser
				565					570					575	
Glu	Leu	Glu	Asp	Glu	Lys	Glu	Glu	He	Ser	Ser	Pro	Asp	Met	Cys	Pro
			580					585					590		
Arg	Pro	Glu	Ser	Pro	Val	Phe	G1y	Ala	Ser	Gly	Gln	Glu	Glu	Leu	Ala
		595					600					605			
Lys	Arg	Leu	Ala	Glu	Leu	Glu	Leu	Ser	Arg	Glu	Phe	Leu	Ser	Ala	Leu
	610					615					620				
Gly	Asp	Asp	Gln	Asp	Trp	Phe	Asp	Glu	Asp	Phe	Gly	Leu	Ser	Ser	Ser
625					630					635					640
His	Lys	lle	Gln	Lys	Asn	Lys	Ala	Glu	Glu	Thr	He	Val	Pro	Leu	Met
				645					650					655	
Ala	Glu	Pro	Lys	Arg	Val	Thr	Gln	Gln	Pro	Cys	Glu	Thr	Leu	Leu	Ala
			660					665					670		
Val	Pro	His	Thr	Ala	Glu	Glu	Val	Glu	He	Leu	Val	His	Asn	Ala	Ala
		675					680					685			
Glu	Glu	Leu	Trp	Lys	Trp	Lys	Glu	Leu	Gly	His	Asp	Leu	His	Ser	lle
	690					695					700				
Ser	He	Pro	Thr	Lys	Leu	Leu	G1 y	Cys	Ala	Ser	Lys	Gly	Leu	Asp	He
705					710					715					720
Glu	Ser	Thr	Ser	Lys	Arg	Val	Tyr	Lys	Gln	Ala	Val	Phe	Asp	Leu	Thr
				725					730					735	
Lys	G1u	He	Phe	G1u	Glu	lle	Phe	Ala	Glu	Asp	Pro	Asn	Leu	Asn	Gln
			740					745					750		
Pro	Val	Trp	Met	Lys	Pro	Cys	Arg	Ile	Asn	Ser	Ser	Tyr	Phe	Arg	Arg
		755					760					765			

Val Lys Asn Pro Asn Asn Leu Asp Glu Ile Lys Ser Phe Ile Ala Ser Glu Val Leu Lys Leu Phe Ser Leu Lys Lys Glu Pro Asn His Lys Thr Asp Trp Gln Lys Met Met Lys Phe Gly Arg Lys Lys Arg Asp Arg Val Asp His Ile Leu Val Gln Glu Leu His Glu Glu Glu Ala Gln Trp Val Asn Tyr Asp Glu Asp Glu Leu Cys Val Lys Met Gln Leu Ala Asp Gly Ile Phe Glu Thr Leu Ile Lys Asp Thr Ile Asp Val Leu Asn Gln Ile Ser Glu Lys Gln Gly Arg Met Leu Leu Val <210> 3918

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3918

Met Leu His Pro Phe Thr Gly Ile Pro Ser Trp Phe Thr Met Ser Ser Tyr Ile His His Met Ser Gly Leu Ser Gly Leu Pro Leu Pro Pro Trp Arg Gly Ser Arg Gln His Asn Asn Ala His Phe Arg Val Gly Leu Leu Gly Pro Leu Leu Ala Pro Ala Pro 11e Gly Ser 11e Pro Trp Ser Gln Thr Leu Arg Trp Arg Ser Cys Ala Gly Val Tyr Trp Arg Val Leu Leu Gly Thr Thr Pro Val Arg Gly Glu Gly Arg Arg Val Gly Gln Glu 

Lys Leu Gly Cys Glu Ala Phe Ser Ser Leu Ser Gln Phe His Arg Gln

100 105 110 Pro Trp Arg Trp Ala Gly Pro Ser Glu Leu Ser Pro Leu Arg Pro Arg 115 120 125 Asp Gln Ala Ser Val His Pro His Ser Thr Ser Val Thr Thr Gly Ser 130 135 140 Gly Ala Thr Ser Ala Arg Gly Thr Ala Trp Gly Gly Thr Arg Met Arg 150 155 160 Gly Val Ser Arg Gln His Pro Trp Gln 165

<210> 3919

<211> 221

<212> PRT

<213> Homo sapiens

<400> 3919

Met Ser Glu Leu Ile Ser Asn Gly Ile Gln Ile Tyr Gln Leu Pro Thr

1 5 10 15

Asp Glu Glu Thr Ala Ala Gln Ala Asn Ser Ser Val Ser Gly Leu Leu 20 25 30

Pro Phe Ala Val Val Gly Ser Thr Asp Glu Val Lys Val Gly Lys Arg
35 40 45

Met Val Arg Gly Arg His Tyr Pro Trp Gly Val Leu Gln Val Glu Asn 50 55 60

Glu Asn His Cys Asp Phe Val Lys Leu Arg Asp Met Leu Leu Cys Thr
65 70 75 80

Asn Met Glu Asn Leu Lys Glu Lys Thr His Thr Gln His Tyr Glu Cys

85 90 95

Tyr Arg Tyr Gln Lys Leu Gln Lys Met Gly Phe Thr Asp Val Gly Pro 100 105 110

Asn Asn Gln Pro Val Ser Phe Gln Glu 11e Phe Glu Ala Lys Arg Gln
115 120 125

Glu Phe Tyr Asp Gln Cys Gln Arg Glu Glu Glu Glu Leu Lys Gln Arg 130 135 140

Phe Met Gln Arg Val Lys Glu Lys Glu Ala Thr Phe Lys Glu Ala Glu

150 145 155 160 Lys Glu Leu Gln Asp Lys Phe Glu His Leu Lys Met Ile Gln Glu 165 170 Glu Ile Arg Lys Leu Glu Glu Glu Lys Lys Gln Leu Glu Gly Glu Ile 180 185 lle Asp Phe Tyr Lys Met Lys Ala Ala Ser Glu Ala Leu Gln Thr Gln 200 205 Leu Ser Thr Asp Thr Lys Lys Asp Lys His Arg Lys Lys 210 215 220

<210> 3920

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3920

Met Leu Phe Ile Glu Leu Val Leu Tyr Leu Pro Ser Val Ser Lys Phe
1 5 10 15

lle Lys lle Arg Asp Phe Leu Cys Phe Pro Arg Glu Asn Ser Thr Phe 20 25 30

Leu Leu Thr Val Arg Pro Val His Trp Cys Leu Ala Pro Val Gln Ala 35 40 45

Asn Gly Ser Ala Met Ser Ser Ala Pro 11e Ser Trp Arg Asp Gly Gln
50 55 60

Arg His Phe Gln Lys Cys Ser Ser Leu Gln Pro Phe Thr Trp Asn Lys
65 70 75 80

Cys His Lys Asp Leu Trp Arg Cys Phe Val Pro Gly Phe Ser Thr Val 85 90 95

Ser Ala Phe Gly Asp Glu Glu Glu Phe Leu Pro Ile Leu Val Val Leu 100 105 110

Ala Ser Ile Gly

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<211> 978
<212> PRT
<213> Homo sapiens
<400> 3921
Met Lys Ser Gly Met Ile Asn Leu Thr Ser Gly Leu Ala Thr Gly Val
                                     10
Thr Asn Lys Lys Glu Val Asp Glu Asp Lys Val Gly Ile Cys Thr Gln
             20
                                  25
Lys His Ser Glu Asn Val Ser Lys Val Thr Ser Thr Thr Thr Val Lys
                             40
Ser Lys Asp Thr Gln Glu Pro Asn Leu Ser Glu Thr Phe Asn Asn Asn
                         55
                                              60
Glu lle Glu Lys Lys Arg Asn Leu lle Pro Thr Asp Lys Lys Gly Lys
 65
                     70
                                          75
                                                              80
Asp Asp Glu Ile Asn Thr His Phe Ser Leu Ile Ile Asp Asp Thr Glu
                                      90
                 85
Tyr Glu Lys Glu Val Leu Gly Ser Asp Ser Glu Ile Gly Tyr Lys Lys
            100
                                 105
                                                     110
Lys 11e Asp Asn Ala Arg Glu Ser Ser Phe Lys Lys Asp Asp Lys Leu
                             120
Phe Gln Leu Ser Ser Leu Lys Ser Lys Arg Asn Leu Gly Thr Thr Thr
                        135
                                             140
Asp Thr Leu Glu Ile Arg Thr Arg Thr Ser Ser Asn Glu Gly Arg Arg
                                         155
                                                              160
145
                    150
Asp Ser Pro Thr Gln Thr Cys Arg Asp Glu Glu His His Ser Asp Tyr
                165
                                     170
Glu His Val Gln Asn Val 11e Glu Asn 11e Phe Glu Asp Val Leu Glu
                                 185
                                                     190
Leu Ser Ser Ser Pro Glu Pro Ala Tyr Tyr Ser Lys Leu Ser Tyr Asp
        195
                             200
                                                 205
Gln Ser Pro Pro Gly Asp Asn Val Leu Asn Val Ile Gln Glu Ile Ser
                        215
                                             220
```

Arg Asp Ser Ala Gln Ser Val Thr Thr Lys Lys Val Ser Ser Ser Thr

Asn Lys Asn Ile Ser Ala Lys Glu Lys Glu Glu Glu Glu Arg Glu Lys

				245					250					255	
Glu	Lys	Val	Arg	Glu	Glu	Ile	Lys	Ser	Glu	Pro	Ser	Lys	Pro	Asp	Asp
			260					265					270		
Pro	Gln	Asn	Gln	Gln	Glu	Ser	Lys	Pro	Gly	He	Phe	Pro	Ala	Lys	Phe
		275					280					285			
Leu	Glu	Asp	Val	He	Thr	Glu	Met	Val	Lys	Gln	Leu	Ile	Phe	Ser	Ser
	290					295					300				
lle	Pro	Glu	Thr	Gln	11e	Gln	Asp	Arg	Cys	Gln	Asn	Val	Ser	Asp	Lys
305					310					315					320
Gln	Asn	Gln	Ala	Lys	Leu	Tyr	Asp	Thr	Ala	Met	Lys	Leu	Ile	Asn	Ser
				325					330					335	
Leu	Leu	Lys	Glu	Phe	Ser	Asp	Ala	Gln	He	Lys	Val	Phe	Arg	Pro	Asp
			340					345					350		
Lys	Gly	Asn	Gln	Phe	Pro	Gly	Gly	Lys	Val	Ser	Ser	Val	Pro	Lys	Val
		355					360					365			
Pro	Pro	Arg	Tyr	Lys	Glu	Pro	Thr	Thr	Asp	Glu	Ala	Pro	Ser	Ser	Ile
	370					375					380				
Lys	Ile	Lys	Ser	Ala	Asp	Lys	Met	Pro	Pro	Met	His	Lys	Met	Met	Arg
385					390					395					400
Lys	Pro	Ser	Ser	Asp	Lys	He	Pro	Ser	He	Asp	Lys	Thr	Leu	Val	Asn
				405					410					415	
Lys	Val	Val	His	Ser	Ser	Val	Cys	Asn	He	Leu	Asn	Asp	Tyr	Gly	Ser
			420					425					430		-
Gln	Asp	Ser	He	Trp	Lys	Asn	He	Asn	Ser	Asn	G1 y	Glu	Asn	Leu	Ala
		435					440					445			
Arg	Arg	Leu	Thr	Ser	Ala	Val	He	Asn	Glu	He	Phe	Gln	His	Gln	Val
	450					455					460				
Asn	Leu	He	Phe	Cys	Asp	G]u	Val	Ser	Val	Ser	Ala	Cys	Leu	Pro	Leu
465					470					475					480
Glu	Ser	Lys	Asp	Val	Va]	Lys	Lys	Val	G]n	Lys	Leu	Ala	Gln	Thr	Ala
				485					490					495	
Ser	Lys	Glu		G1n	Thr	Ser	Ser		Tyr	Thr	He	He		Pro	His
			500					505					510		
Lys	Phe		G1u	Asn	Val	He		Ala	Leu	Phe	Ser		Пe	Phe	Ser
<b></b>		515					520		_			525			
Thr	He	Ser	Ser	Thr	Lys	Thr	Lys	Glu	Pro	Glu	Asp	Asn	Leu	Ser	Thr
															*

	530					535					540				
Glu	Leu	Asn	Phe	Leu	Gln	Met	Lys	Leu	Val	Ser	Ala	Val	Ala	Thr	Glu
545					550					555					560
11e	Ser	Gln	Asp	Lys	Tyr	Met	Thr	He	Gln	Tyr	Val	Glu	Thr	Leu	Gln
				565					570					575	
Ser	Asp	Asp	Asp	Glu	He	He	Gln	Leu	Val	Val	Gln	Ser	Val	Tyr	Asn
			580					585					590		
Asn	Leu	Leu	Pro	Gln	Phe	Gly	Ser	Gln	Glu	lle	He	Gln	Asn	Cys	Val
		595					600					605			
Thr	Ser	Gly	Cys	Lys	He	Leu	Ser	Glu	Asn	Ile	Val	Asp	Leu	Val	Leu
	610					615					620				
Arg	Glu	Val	Ala	Ser	Asn	Gln	Leu	Gln	Ser	Tyr	Phe	Cys	Gly	Glu	Leu
625					630					635					640
Thr	Pro	His	Gln	Cys	Val	Glu	Val	Glu	Asn	He	Val	Glu	Lys	He	Leu
				645					650					655	
Lys	Asp	Val	Phe	Gln	Thr	Thr	Asp	Val	Pro	Gln	Pro	Lys	Pro	Ser	His
			660					665					670		
Ala	Asp	Lys	Leu	Ser	Tyr	Asn	He	He	Glu	Glu	He	Ala	Val	Lys	Phe
		675					680					685			
Leu	Ser	Lys	Leu	Leu	Ser	He	Phe	Pro	Lys	Val	His	Lys	Glu	Arg	Thr
	690					695					700				
	Ser	Leu	Glu	Thr	Asp	Met	Gln	Lys	He		Ser	Lys	Val	Leu	
705					710					715					720
Ser	Val	GIn	Glu		lle	Ser	Lys	Ser		]]e	Lys	Leu	Val		Pro
				725					730					735	
Thr	Lys	G]u		Pro	Thr	Val	Pro		Ala	Asp	Asn	Ala		He	Glu
			740			<b></b>	m	745					750	0.1	
Asn	He		Asn	Ser	He	Tyr		Ser	Val	Leu	Lys		Ser	Gly	Ser
т	Tr.I	755	1	131	,		760		C1	,	C	765	V 1	,	C
lyr		Ser	Val	Phe	Lys	Asp	Leu	Met	01 y	Lys		Asn	vai	Leu	Ser
Λ	770	11.	C1	۲۵۱	1	775	17 - 1	Λ	41-	11.	780	Λ	C	C1	DI
	lhr	11e	GIV	Phe		Met	Val	Asn	Ala		Ser	Asn	Ser	Glu	
785	D	CI.	Vel	Clas	790	C1	Ve 1	C e- v-	A	795	C1	1	Ve 1	Lov	800
om	110	oin	vai	805	010	Glu	vai	ser	Asn 810	ser	GIU	Leu	val	815	010
Ala	Val	lve	Ha		Glu	lvs	Va 1	116		He	Tle	Aen	Glu		lve
1310	1 (1 !	1. 1.	1 1 1 1 1 1 1 1 1 1	DICT 1	13 1 11	1. 1.	1 (1 1	1 1 1 1 1 1 1 1 1	1.V.	1 1 1.	1 1 1 1 7 7	11011	V1 [ [	1.0701	1.V

			820					825					830		
Ser	Lys	Glu	Lys	Ser	Ser	Ser	Arg	Lys	Gly	Leu	Thr	Leu	Asp	Ala	Lys
		835					840					845			
Leu	Leu	Glu	Glu	Va]	Leu	Ala	Leu	Phe	Leu	Ala	Lys	Leu	lle	Arg	Leu
	850					855					860				
Pro	Ser	Ser	Ser	Ser	Lys	Asp	Glu	Lys	Asn	Leu	Ser	Lys	Thr	Glu	Leu
865					870					875					880
Asn	Lys	He	Ala	Ser	Gln	Leu	Ser	Lys	Leu	Val	Thr	Ala	Glu	lle	Ser
				885					890					895	
Arg	Ser	Ser	Ile	Ser	Leu	Ile	Ala	Ser	Asp	Pro	Glu	Glu	His	Cys	Leu
								005							
			900					905					910		
Asn	Pro	Glu		Thr	Glu	Arg	11e		G1n	Val	Val	Asp		Val	Tyr
Asn	Pro	Glu 915		Thr	Glu	Arg	11e 920		Gln	Val	Val	Asp 925		Val	Tyr
		915	Asn			Arg Ser	920	Tyr				925	Ser		
		915	Asn				920	Tyr				925	Ser		
Ser	Asn 930	915 11e	Asn Leu	Gln	Gln	Ser	920 Gly	Tyr Thr	Asn	Lys	Glu 940	925 Phe	Ser Tyr	Tyr	Asp
Ser	Asn 930	915 11e	Asn Leu	Gln	Gln	Ser 935	920 Gly	Tyr Thr	Asn	Lys	Glu 940	925 Phe	Ser Tyr	Tyr	Asp
Ser 11e 945	Asn 930 Lys	915 1le Asp	Asn Leu Thr	Gln Asn	G1n Thr 950	Ser 935	920 Gly Phe	Tyr Thr Pro	Asn Lys	Lys Lys 955	Glu 940 Val	925 Phe Ala	Ser Tyr Ser	Tyr Leu	Asp 11e 960
Ser 11e 945	Asn 930 Lys	915 1le Asp	Asn Leu Thr	Gln Asn	G1n Thr 950	Ser 935 Ala	920 Gly Phe	Tyr Thr Pro	Asn Lys	Lys Lys 955	Glu 940 Val	925 Phe Ala	Ser Tyr Ser	Tyr Leu	Asp 11e 960

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<211> 140

<212> PRT

<213> Homo sapiens

<400> 3922

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⟨210⟩ 3923

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3923

Met Tyr Pro Glu Pro Ser Leu Phe Leu Tyr Cys Pro Ser Lys Met Ser 1  $\phantom{0}$  5  $\phantom{0}$  5  $\phantom{0}$  10  $\phantom{0}$  15  $\phantom{0}$  Val Glu Glu Pro Val Val Cys Trp Gly Arg Ile 20  $\phantom{0}$  25  $\phantom{0}$  30  $\phantom{0}$  Leu Gly Trp His Ser Leu Arg His Pro Thr Ser Thr Ser Pro Met Leu 35  $\phantom{0}$  40  $\phantom{0}$  45

Phe His Met Val Pro Gly Ser Ser Thr Val Thr Ser Thr Leu Glu Met 50 55 60

Ala Thr Val Thr Cys Pro Ser His Arg Glu Thr Lys His Ser Pro Cys
65 70 75 80

Leu Pro Asp Ser Gly Val Cys Leu Leu Ser Phe Tyr His His Leu Pro

Pro Val Glu Gly Phe Leu Arg Asn Asp Leu Pro Gly Glu Asn Pro Phe 100 105 110

lle Pro Arg Pro Pro Ser His Pro lle lle Gln Cys lle Leu 115 120 125

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Ser Ser Leu Asp Ser Val His Leu Gln Met Ile Lys Gly Met Leu Tyr
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Gln Gln Arg Gln Asp Phe Ser Ser Gln Asp Ser Val Ser Arg Lys Lys
                             40
                                                 45
Val Leu Ser Leu Asn Leu Lys Gln Thr Ser Lys Thr Glu Glu lle Lys
     50
                         55
                                             60
Asn Val Leu Gly Gly Ser Thr Cys Tyr Asn Tyr Ser Val Lys Asp Leu
                     70
                                         75
Gln Glu Ile Ser Gly Ser Glu Leu Cys Phe Pro Ser Gly Gln Lys Ile
                 85
                                     90
Lys Ser Ala Tyr Leu Pro Gln Arg Gln Ile His Ile Pro Ala Val Phe
                                105
Gln Ser Pro Ala His Tyr Lys Gln Thr Phe Thr Ser Cys Leu lle Glu
                            120
                                                125
His Leu Asn Ile Leu Leu Phe Gly Leu Ala Gln Asn Leu Gln Lys Ala
    130
                        135
                                             140
Leu Ser Lys Val Asp 11e Ser Phe Tyr Thr Ser Leu Lys Gly Glu Lys
                    150
                                        155
Leu Lys Asn Ala Glu Asn Asn Val Pro Ser Cys His His Ser Gln Pro
                165
                                     170
Ala Lys Leu Val Met Val Lys Lys Glu Gly Pro Asn Lys Gly Arg Leu
            180
                                185
                                                     190
Phe Tyr Thr Cys Asp Gly Pro Lys Ala Asp Arg Cys Lys Phe Phe Lys
                            200
                                                 205
Trp Leu Glu Asp Val Thr Pro Gly Tyr Ser Thr Gln Glu Gly Ala Arg
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Pro Gly Met Val Leu Ser Asp lle Lys Ser lle Gly Leu Tyr Leu Arg

225					230					235					240
Ser	Gln	Lys	lle	Pro	Leu	Tyr	Glu	Glu	Cys	Gln	Leu	Leu	Val	Arg	Lys
				245					250					255	
Gly	Phe	Asp	Phe	Gln	Arg	Lys	Gln	Tyr	G1 y	Lys	Leu	Lys	Lys	Phe	Thr
			260					265					270		
Thr	Val	Asn	Pro	Glu	Phe	Tyr	Asn	Glu	Pro	Lys	Thr	Lys	Leu	Tyr	Leu
		275					280					285			
Lys	Leu	Ser	Arg	Lys	Glu	Arg	Ser	Ser	Ala	Tyr	Ser	Lys	Asn	Asp	Leu
	290					295					300				
Trp	Val	Val	Ser	Lys	Thr	Leu	Asp	Phe	Glu	Leu	Asp	Thr	Phe	He	Ala
305					310					315					320
Cys	Ser	Ala	Phe	Phe	Gly	Pro	Ser	Ser	lle	Asn	Glu	He	Glu	He	Leu
	۰			325					330					335	
Pro	Leu	Lys	Gly	Tyr	Phe	Pro	Ser	Asn	Trp	Pro	Thr	Asn	Met	Val	Val
			340					345					350		
His	Ala	Leu	Leu	Val	Cys	Asn	Ala	Ser	Thr	Glu	Leu	Thr	Thr	Leu	Lys
		355					360					365			
Asn	Ile	Gln	Asp	Tyr	Phe	Asn	Pro	Ala	Thr	Leu	Pro	Leu	Thr	Gln	Tyr
	370					375					380				
Leu	Leu	Thr	Thr	Ser	Ser	Pro	Thr	He	Val	Ser	Asn	Lys	Arg	Val	Ser
385					390					395					400
Lys	Arg	Lys	Phe	He	Pro	Pro	Ala	Phe	Thr	Asn	Va]	Ser	Thr	Lys	Phe
				405					410					415	
Glu	Leu	Leu		Leu	G1y	Ala	Thr	Leu	Lys	Leu	Ala	Ser	Glu	Leu	He
			420					425					430		
Gln	Val		Lys	Leu	Asn	Lys		Gln	Ala	Thr	Ala		He	Gln	lle
		435			_		440	_				445			
Ala		Met	Met	Ala	Ser		Glu	Ser	lle	G]u	Glu	Val	Lys	Glu	Leu
0.1	450		<i>m</i> 1	151		455					460		•~•		
	Thr	His	lhr	Phe		He	Thr	He	He		Gly	Val	Phe	Gly	
465	,	c	Tr.		470			., 1	7.1	475	D.	151		0.1	480
Gly	Lys	Ser	iyr		Leu	Ala	Val	Val		Leu	Phe	Phe	Val		Leu
DI	CT.		Ċ	485	4.1	15	T)	7.1	490		. 1		D	495	
rne	GIU	Lys		61u	Ala	Pro	ınr		61 y	Asn	Ala	Arg		Erp	Lys
Lan	Lou	110	500 Sor	S	Ç	Th	Λ ~ ~	505	۸1	Ve. 1	Asp	A 22 ~	510 Vol.	1	Larr
LUU	LCU	115	001	OC.L	O.C.	1111	A S D	va i	AIA	val	ASD	UIF	v a i	1.6.11	1.4-71

		515					520					525			
Gly	Leu	Leu	Ser	Leu	Gly	Phe	Glu	Asn	Phe	Ile	Arg	Val	Gly	Ser	Val
	530					535					540				
Arg	Lys	He	Ala	Lys	Pro	He	Leu	Pro	Tyr	Ser	Leu	His	Λla	Gly	Ser
545					550					555					560
Glu	Asn	Glu	Ser	Glu	Gln	Leu	Lys	Glu	Leu	His	Ala	Leu	Met	Lys	Glu
				565					570					575	
Asp	Leu	Thr	Pro	Thr	Glu	Arg	Val	Tyr	Val	Arg	Lys	Ser	Ile	Glu	Gln
			580					585					590		
His	Lys	Leu	Gly	Thr	Asn	Arg	Thr	Leu	Leu	Lys	Gln	Val	Arg	Val	Val
		595					600					605			
Gly	Val	Thr	Cys	Ala	Ala	Cys	Pro	Phe	Pro	Cys	Met	Asn	Asp	Leu	Lys
	610					615					620				
Phe	Pro	VaI	Val	Val	Leu	Asp	Glu	Cys	Ser	Gln	11e	Thr	Glu	Pro	Ala
625					630					635					640
Ser	Leu	Leu	Pro	lle	Ala	Arg	Phe	Glu	Cys	Glu	Lys	Leu	lle	Leu	Val
				645					650					655	
Gly	Asp	Pro	Lys	Gln	Leu	Pro	Pro	Thr	He	Gln	Gly	Ser	Asp	Ala	Ala
			660					665					670		
11.	~ 1	Λ	C1	1	C1n	C1n	Thr	Lou	Pho	Acn	Ara	1	C	1	Mat
H1S	Glu	Asn	GIY	Leu	Ulu	OIII	1111	Leu	THE	пър	ть Б	Leu	Cys	Leu	wet
H1S	Glu	675	GIY	Leu	Ulu	OIII	680	Leu	THE	пэр	m g	685	Cys	Leu	мет
		675			Leu		680					685			
Gly	His 690	675 Lys	Pro	Ile	Leu	Leu 695	680 Arg	Thr	Gln	Tyr	Arg 700	685 Cys	His	Pro	Ala
Gly	His 690	675 Lys	Pro	Ile	Leu Asn	Leu 695	680 Arg	Thr	Gln	Tyr Lys	Arg 700	685 Cys	His	Pro	Ala Asn
Gly Ile 705	His 690 Ser	675 Lys Ala	Pro Ile	Ile Ala	Leu Asn 710	Leu 695 Asp	680 Arg Leu	Thr Phe	Gln Tyr	Tyr Lys 715	Arg 700 Gly	685 Cys Ala	His Leu	Pro Met	Ala Asn 720
Gly Ile 705	His 690 Ser	675 Lys Ala	Pro Ile	lle Ala	Leu Asn	Leu 695 Asp	680 Arg Leu	Thr Phe	Gln Tyr Leu	Tyr Lys 715	Arg 700 Gly	685 Cys Ala	His Leu	Pro Met	Ala Asn 720
Gly Ile 705 Gly	His 690 Ser Val	675 Lys Ala Thr	Pro Ile Glu	11e Ala 11e 725	Leu Asn 710 Glu	Leu 695 Asp Arg	680 Arg Leu Ser	Thr Phe Pro	Gln Tyr Leu 730	Tyr Lys 715 Leu	Arg 700 Gly Glu	685 Cys Ala Trp	His Leu Leu	Pro Met Pro 735	Ala Asn 720 Thr
Gly Ile 705 Gly	His 690 Ser Val	675 Lys Ala Thr	Pro Ile Glu Tyr	11e Ala 11e 725	Leu Asn 710	Leu 695 Asp Arg	680 Arg Leu Ser	Thr Phe Pro Leu	Gln Tyr Leu 730	Tyr Lys 715 Leu	Arg 700 Gly Glu	685 Cys Ala Trp	His Leu Leu Arg	Pro Met Pro 735	Ala Asn 720 Thr
Gly Ile 705 Gly Leu	His 690 Ser Val	675 Lys Ala Thr	Pro Ile Glu Tyr 740	Ile Ala Ile 725 Asn	Leu Asn 710 Glu Val	Leu 695 Asp Arg Lys	680 Arg Leu Ser Gly	Thr Phe Pro Leu 745	Gln Tyr Leu 730 Glu	Tyr Lys 715 Leu Gln	Arg 700 Gly Glu 11e	685 Cys Ala Trp Glu	His Leu Leu Arg 750	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn
Gly Ile 705 Gly Leu	His 690 Ser Val	675 Lys Ala Thr Phe	Pro Ile Glu Tyr 740	Ile Ala Ile 725 Asn	Leu Asn 710 Glu	Leu 695 Asp Arg Lys	680 Arg Leu Ser Gly	Thr Phe Pro Leu 745	Gln Tyr Leu 730 Glu	Tyr Lys 715 Leu Gln	Arg 700 Gly Glu 11e	685 Cys Ala Trp Glu Lys	His Leu Leu Arg 750	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn
Gly Ile 705 Gly Leu Ser	His 690 Ser Val Cys	675 Lys Ala Thr Phe His 755	Pro Ile Glu Tyr 740 Asn	Ile Ala Ile 725 Asn Val	Leu Asn 710 Glu Val	Leu 695 Asp Arg Lys	680 Arg Leu Ser Gly Ala 760	Thr Phe Pro Leu 745 Thr	Gln Tyr Leu 730 Glu Phe	Tyr Lys 715 Leu Gln Thr	Arg 700 Gly Glu 11e Leu	685 Cys Ala Trp Glu Lys 765	His Leu Leu Arg 750 Leu	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn Gln
Gly Ile 705 Gly Leu Ser	His 690 Ser Val Cys Phe	675 Lys Ala Thr Phe His 755	Pro Ile Glu Tyr 740 Asn	Ile Ala Ile 725 Asn Val	Leu Asn 710 Glu Val	Leu 695 Asp Arg Lys Glu	680 Arg Leu Ser Gly Ala 760	Thr Phe Pro Leu 745 Thr	Gln Tyr Leu 730 Glu Phe	Tyr Lys 715 Leu Gln Thr	Arg 700 Gly Glu lle Leu lle	685 Cys Ala Trp Glu Lys 765	His Leu Leu Arg 750 Leu	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn Gln
Gly Ile 705 Gly Leu Ser	His 690 Ser Val Cys Phe Leu 770	675 Lys Ala Thr Phe His 755 11e	Pro Ile Glu Tyr 740 Asn	Ile Ala Ile 725 Asn Val	Leu Asn 710 Glu Val Ala Gly	Leu 695 Asp Arg Lys Glu 11e 775	680 Arg Leu Ser Gly Ala 760 Ala	Thr Phe Pro Leu 745 Thr	Gln Tyr Leu 730 Glu Phe	Tyr Lys 715 Leu Gln Thr	Arg 700 Gly Glu 11e Leu 11e 780	685 Cys Ala Trp Glu Lys 765 Gly	His Leu Leu Arg 750 Leu Val	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn Gln Thr
Gly Ile 705 Gly Leu Ser Leu	His 690 Ser Val Cys Phe Leu 770	675 Lys Ala Thr Phe His 755 11e	Pro Ile Glu Tyr 740 Asn	Ile Ala Ile 725 Asn Val	Leu Asn 710 Glu Val Ala Gly Met	Leu 695 Asp Arg Lys Glu 11e 775	680 Arg Leu Ser Gly Ala 760 Ala	Thr Phe Pro Leu 745 Thr	Gln Tyr Leu 730 Glu Phe	Tyr Lys 715 Leu Gln Thr Met	Arg 700 Gly Glu 11e Leu 11e 780	685 Cys Ala Trp Glu Lys 765 Gly	His Leu Leu Arg 750 Leu Val	Pro Met Pro 735 Asp	Ala Asn 720 Thr Asn Gln Thr
Gly Ile 705 Gly Leu Ser Leu 785	His 690 Ser Val Cys Phe Leu 770 Tyr	675 Lys Ala Thr Phe His 755 lle Lys	Pro Ile Glu Tyr 740 Asn Ala	Ile Ala Ile 725 Asn Val Ser Gln	Leu Asn 710 Glu Val Ala Gly	Leu 695 Asp Arg Lys Glu 11e 775 Tyr	680 Arg Leu Ser Gly Ala 760 Ala Lys	Thr Phe Pro Leu 745 Thr Gly Leu	Gln Tyr Leu 730 Glu Phe Ser Cys	Tyr Lys 715 Leu Gln Thr Met His 795	Arg 700 Gly Glu lle Leu lle 780 Leu	685 Cys Ala Trp Glu Lys 765 Gly Leu	His Leu Leu Arg 750 Leu Val	Pro Met Pro 735 Asp Ile Ile	Ala Asn 720 Thr Asn Gln Thr Val 800

Ala Phe Gln Gly Ala Glu Lys Glu Ile Ile Ile Leu Ser Cys Val Arg Thr Arg Gln Val Gly Phe Ile Asp Ser Glu Lys Arg Met Asn Val Ala Leu Thr Arg Gly Lys Arg His Leu Leu Ile Val Gly Asn Leu Ala Cys Leu Arg Lys Asn Gln Leu Trp Gly Arg Val Ile Gln His Cys Glu Gly Arg Glu Asp Gly Leu Gln His Ala Asn Gln Tyr Glu Pro Gln Leu Asn His Leu Leu Lys Asp Tyr Phe Glu Lys Gln Val Glu Glu Lys Gln Lys Lys Lys Ser Glu Lys Glu Lys Ser Lys Asp Lys Ser His Ser 

<210> 3925

<211> 1058

<212> PRT

<213> Homo sapiens

<400> 3925

Met Ile Ile Cys Leu Leu Met Thr Leu Lys Leu Arg Tyr Leu Pro Thr Lys Val Leu Gln Leu Glu Ser Cys Leu Glu His Lys Ser Arg Ser Ser Pro Ile Ala Leu Ile Asp Glu Lys Ser Thr Asn Ala His Leu Ser Leu Pro Gln Lys Ser Pro Ser Leu Ala Lys Glu Val Pro Asp Leu Cys Phe Ser Asp Asp Tyr Phe Ser Asp Lys Gly Ala Ala Lys Glu Glu Lys Pro Lys Asn Asp Gln Glu Pro Val Asn Arg 11e 11e Gln Lys Lys Glu Asn 

Asn Asp His Phe Glu Leu Asp Cys Thr Gly Pro Ser Ile Lys Ser Pro

			100					105					110		
Ser	Ser	Ser	He	Ile	Lys	Lys	Ala	Ser	Phe	Glu	His	Gly	Lys	Lys	Gln
		115					120					125			
Glu	Asn	Asp	Leu	Asp	Leu	Leu	Ser	Asp	Phe	He	Met	Leu	Arg	Asn	Lys
	130					135					140				
Tyr	Lys	Thr	Cys	Thr	Ser	Lys	Thr	Glu	Val	Thr	Asn	Ser	Asp	Glu	Lys
145					150					155					160
His	Asp	Lys	Glu	Ala	Cys	Ser	Leu	Thr	Leu	Gln	Glu	Glu	Ser	Pro	Ile
				165					170					175	
Val	His	Ile	Asn	Lys	Thr	Leu	Glu	Glu	Πle	Asn	Gln	Glu	Arg	Gly	Thr
			180					185					190		
Asp	Ser	Val	Ile	Glu	lle	Gln	Ala	Ser	Asp	Ser	Gln	Cys	Gln	Ala	Phe
		195					200					205			
Cys	Leu	Leu	Glu	Ala	Ala	Ala	Ser	Pro	Пе	Leu	Lys	Asn	Leu	Val	Ser
	210					215					220				
Leu	Cys	Thr	Leu	Pro	Thr	Ala	Asn	Trp	Lys	Phe	Ala	Thr	Val	He	Phe
225					230					235					240
Asp	Gln	Thr	Arg	Phe	Leu	Leu	Lys	Glu	Gln	Glu	Lys	Val	Val	Ser	Asp
				245					250					255	
Ala	Val	Arg	Gln	G1y	Thr	He	Asp	Glu	Arg	Glu	Met	Thr	Phe	Lys	His
			260					265					270		
Ala	Ala	Leu	Leu	His	Leu	Leu	Val	Thr	He	Arg	Asp	Val	Leu	Leu	Thr
		275					280					285			
Cys	Ser	Leu	Asp	Thr	Ala	Leu	G1 y	Tyr	Leu	Ser	Lys	Ala	Lys	Asp	He
	290					295					300				
Tyr	Asn	Ser	lle	Leu	Gly	Pro	Tyr	Leu	Gly	Asp	lle	Trp	Arg	Gln	Leu
305					310					315					320
Glu	Ile	Val	Gln	Phe	lle	Arg	Gly	Lys	Lys	Pro	Glu	Thr	Asn		Lys
				325					330					335	
He	Gln	Glu	Leu	Gln	Cys	Gln	lle	Leu	Ser	Trp	Met	Gln	Ser	Gln	Gln
			340					345					350		
Gln	He	Lys	Val	Leu	lle	lle		Arg	Met	Asp	Ser		Gly	Glu	Lys
		355					360					365			
His		Leu	lle	Lys	He	Leu	Asn	Lys	He	Glu	Gly	Leu	Thr	Leu	Thr
	370					375					380				
Val	Leu	His	Ser	Asn	Glu	Arg	Lys	Asp	Phe	Leu	Glu	Ser	Glu	Gly	Val

385					390					395					400
Leu	Arg	Gly	Thr	Ser	Ser	Cys	Val	Val	Val	His	Asn	Gln	Tyr	He	Gly
				405					410					415	
Ala	Asp	Phe	Pro	Trp	Ser	Asn	Phe	Ser	Phe	Val	Val	Glu	Tyr	Asn	Tyr
			420					425					430		
Val	Glu	Asp	Ser	Cys	Trp	Thr	Lys	His	Cys	Lys	Glu	Leu	Asn	He	Pro
		435					440					445			
Tyr	Met	Ala	Phe	Lys	Val	Ile	Leu	Pro	Asp	Thr	Val	Leu	Glu	Arg	Ser
	450					455					460				
Thr	Leu	Leu	Asp	Arg	Phe	Gly	Gly	Phe	Leu	Leu	Glu	He	Gln	He	Pro
465					470					475					480
Tyr	Val	Phe	Phe	Ala	Ser	Glu	Gly	Leu	Leu	Asn	Thr	Pro	Asp	Пе	Leu
				485					490					495	
Gln	Leu	Leu	Glu	Ser	Asn	Tyr	Asn	Ile	Ser	Leu	Val	Glu	Arg	Gly	Cys
			500					505					510		
Ser	Glu	Ser	Leu	Lys	Leu	Phe	Gly	Ser	Ser	Glu	Cys	Tyr	Val	Val	Val
		515					520					525			
Thr	Ile	Asp	Glu	His	Thr	Ala	Ile	Ile	Leu	Gln	Asp	Leu	Glu	Glu	Leu
	530					535					540				
Asn	Cys	Glu	Lys	Ala	Ser	Asp	Asn	He	lle	Met	Arg	Leu	Met	Ala	Leu
545					550					555					560
Ser	Leu	Gln	Tyr	Arg	Tyr	Cys	Trp	Ile	Ile	Leu	Tyr	Thr	Lys	Glu	Thr
				565					570					575	
Leu	Asn	Ser	Glu	Tyr	Pro	Leu	Thr	Glu	Lys	Thr	Leu	His	His	Leu	Ala
			580					585					590		
Leu	lle	Tyr	Ala	Ala	Leu	Val	Ser	Phe	Gly	Leu	Asn	Ser	Glu	Glu	Leu
		595					600					605			
Asp	Val	Lys	Leu	lle	lle	Ala	Pro	Gly	Val	Glu	Ala	Thr	Ala	Leu	He
	610					615					620				
lle	Arg	Gln	lle	Ala	Asp	His	Ser	Leu	Met	Thr	Ser	Lys	Arg	Asp	Pro
625					630					635					640
His	Glu	Trp	Leu	Asp	Lys	Ser	Trp	Leu	Lys	Val	Ser	Pro	Ser	Glu	Glu
				645					650					655	
Glu	Met	Tyr	Leu	Leu	Asp	Phe	Pro	Cys	He	Asn	Pro	Leu	Val	Ala	Gln
			660					665					670		

Leu	Met	Leu 675	Asn	Lys	Gly	Pro	Ser 680	Leu	His	Trp	Ile	Leu 685	Leu	Ala	Thr
Leu	Cys 690	Gln	Leu	Gln	G1u	Leu 695	Leu	Pro	Glu	Val	Pro 700	Glu	Lys	Val	Leu
Lys		Phe	Cys	Ser	He	Thr	Ser	Leu	Phe	Lys	He	Gly	Ser	Ser	Ser
705					710					715					720
Ile	Thr	Lys	Ser	Pro 725	Gln	Ile	Ser	Ser	Pro 730	Gln	Glu	Asn	Arg	Asn 735	Gln
He	Ser	Thr	Leu	Ser	Ser	Gln	Ser	Ser	Ala	Ser	Asp	Leu	Asp	Ser	Val
			740					745					750		
He	Gln	Glu	His	Asn	Glu	Tyr	Tyr	Gln	Tyr	Leu	Gly	Leu	Gly	Glu	Thr
		755					760					765			
Val	Gln	Glu	Asp	Lys	Thr	Thr	Thr	Leu	Asn	Asp	Asn	Ser	Ser	He	Met
	770					775					780				
Glu	Leu	Lys	Gly	He	Ser	Ser	Phe	Leu	Pro	Pro	Val	Thr	Ser	Tyr	Asn
785					790					795					800
Gln	Thr	Ser	Tyr		Lys	Asp	Ser	Ser		Lys	Ser	Asn	Ile	Gly	G1n
				805					810					815	
Asn	Thr	Pro		Leu	He	Asn	Ile		Ser	Arg	Arg	Pro		Tyr	Asn
			820					825				151	830		0.1
Ser	Phe		Asn	His	Ser	Asp		Glu	Ser	Asp	Val		Ser	Leu	Gly
	TT I	835			C	61	840	7.1	,	C	D	845		T)	6.1
Leu		GIn	Met	Asn	Cys		Hhr	11e	Lys	Ser		Ihr	Asp	Thr	GIN
1	850	V = 1	C	Val	V o 1	855	A 22.55	Dlag	11.	Aan	860	Cla	1	A 12.00	Ama
	Arg	vai	ser	vai	870	rro	A1.8	rne	116	875	Ser	GIII	Lys	Arg	880
865	Hie	Glu	Ala	lve		Pho	ماا	Aen	lve		Val	Sor	Aen	Pro	
1111	1113	Old	MIG	885	Oly	THE	110	ASH	890	пор	741	501	пор	895	110
Phe	Ser	Leu	Glu		Thr	Gln	Ser	Pro		His	Trp	Asn	Phe	Lys	Lys
			900					905			1		910	,	, -
Asn	He	Trp		Gln	Glu	Asn	His		Phe	Asn	Leu	Gln		Gly	Ala
		915					920					925	•	•	
Gln	Gln		Ala	Cys	Asn	Lys		Tyr	Ser	Gln	Lys		Asn	Leu	Phe
	930			•		935		•			940	-			
Thr	Лsp	Gln	Gln	Lys	Cys	Leu	Ser	Asp	Glu	Ser	Glu	Gly	Leu	Thr	Cys
945					950					955					960

;

Glu	Ser	Ser	Lys	Asp	Glu	Thr	Phe	Trp	Arg	Glu	Leu	Pro	Ser	Val	Pro
				965					970					975	
Ser	Leu	Asp	Leu	Phe	Arg	Ala	Ser	Asp	Ser	Asn	Ala	Asn	Gln	Lys	Glu
			980					985					990		
Phe	Asn	Ser	Leu	Tyr	Phe	Tyr	Gln	Arg	Ala	Gly	Lys	Ser	Leu	Gly	Gli
		995				]	000					005			
Lys	Arg	His	His	Glu	Ser	Ser	Phe	Asn	Ser	Gly	Asp	Lys	Glu	Ser	Lei
]	1010				]	1015					1020				
Thr	Gly	Phe	Met	Cys	Ser	Gln	Leu	Pro	Gln	Phe	Lys	Lys	Arg	Arg	Lei
1025	5			]	030				,	1035					1040
Ala	Tyr	Glu	Lys	Val	Pro	Gly	Arg	Val	Asp	Gly	Gln	Thr	Arg	Leu	Ar
				1045					1050					1055	
Phe	Phe														

<210> 3926

<211> 539

<212> PRT

<213> Homo sapiens

100

<400> 3926

Met Pro Gly Gln Arg Arg Ala Leu Ser Pro Lys Met Ala Ser Met Arg 5 ļ 10 15 Glu Ser Asp Thr Gly Leu Trp Leu His Asn Lys Leu Gly Ala Thr Asp 20 25 30 Glu Leu Trp Ala Pro Pro Ser Ile Ala Ser Leu Leu Thr Ala Ala Val 40 45 lle Asp Asn lle Arg Leu Cys Phe His Gly Leu Ser Ser Ala Val Lys 50 55 60 Leu Lys Leu Leu Gly Thr Leu His Leu Pro Arg Arg Thr Val Asp 70 Glu Met Lys Gly Ala Leu Met Glu Ile Ile Gln Leu Ala Ser Leu Asp 85 90 95 Ser Asp Pro Trp Val Leu Met Val Ala Asp lle Leu Lys Ser Phe Pro

105

Asp	Thr	G1 y	Ser	Leu	Asn	Leu	Glu	Leu	Glu	Glu	Gln	Asn	Pro	Asn	Val
		115					120					125			
Gln	Asp	lle	Leu	Gly	Glu	Leu	Arg	Glu	Lys	Val	Gly	Glu	Cys	Glu	Ala
	130					135					140				
Ser	Ala	Met	Leu	Pro	Leu	Glu	Cys	Gln	Tyr	Leu	Asn	Lys	Asn	Ala	Leu
145					150					155					160
Thr	Thr	Leu	Ala	Gly	Pro	Leu	Thr	Pro	Pro	Val	Lys	His	Phe	Gln	Leu
				165					170					175	
Lys	Arg	Lys	Pro	Lys	Ser	Ala	Thr	Leu	Arg	Ala	Glu	Leu	Leu	Gln	Lys
			180					185					190		
Ser	Thr	Glu	Thr	Ala	Gln	Gln	Leu	Lys	Arg	Ser	Ala	Gly	Val	Pro	Phe
		195					200					205			
His	Ala	Lys	Gly	Arg	Gly	Leu	Leu	Arg	Lys	Met	Asp	Thr	Thr	Thr	Pro
	210					215					220				
Leu	Lys	Gly	He	Pro	Lys	Gln	Ala	Pro	Phe	Arg	Ser	Pro	Thr	Ala	Pro
225					230					235					240
Ser	Val	Phe	Ser	Pro	Thr	Gly	Asn	Arg	Thr	Pro	lle	Pro	Pro	Ser	Arg
				245					250					255	
Thr	Leu	Leu	Arg	Lys	Glu	Arg	Gly	Val	Lys	Leu	Leu	Asp	Πle	Ser	Glu
			260					265					270		
Leu	Asp	Met	Val	Gly	Ala	Gly	Arg	Glu	Ala	Lys	Arg	Arg	Arg	Lys	Thr
		275					280					285			
Leu	Asp	Ala	Glu	Val	Val	Glu	Lys	Pro	Ala	Lys	Glu	Glu	Thr	Val	Val
	290					295					300				
Glu	Asn	Ala	Thr	Pro	Asp	Tyr	Ala	Ala	Gly	Leu	Va]	Ser	Thr	Gln	Lys
305					310					315					320
Leu	Gly	Ser	Leu	Asn	Asn	Glu	Pro	Ala	Leu	Pro	Ser	Thr	Ser	Tyr	Leu
				325					330					335	
Pro	Ser	Thr	Pro	Ser	Val	Val	Pro	Ala	Ser	Ser	Tyr	He	Pro	Ser	Ser
			340					345					350		
Glu	Thr	Pro	Pro	Ala	Pro	Ser	Ser	Arg	Glu	Ala	Ser	Arg	Pro	Pro	Glu
		355					360					365			
G1u	Pro	Ser	Ala	Pro	Ser	Pro	Thr	Leu	Pro	Ala	Gln	Phe	Lys	Gln	Arg
	370					375					380				
Ala	Pro	Met	Tyr	Asn	Ser	Gly	Leu	Ser	Pro	Ala	Thr	Pro	Thr	Pro	
385					390					395					400

Ala Pro Thr Ser Pro Leu Thr Pro Thr Thr Pro Pro Ala Val Ala Pro 405 410 Thr Thr Gln Thr Pro Pro Val Ala Met Val Ala Pro Gln Thr Gln Ala 420 425 430 Pro Ala Gln Gln Pro Lys Lys Asn Leu Ser Leu Thr Arg Glu Gln 440 445 Met Phe Ala Ala Gln Glu Met Phe Lys Thr Ala Asn Lys Val Thr Arg 455 Pro Glu Lys Ala Leu Ile Leu Gly Phe Met Ala Gly Ser Arg Glu Asn 465 470 Pro Cys Gln Glu Gln Gly Asp Val Ile Gln Ile Lys Leu Ser Glu His 490 485 Thr Glu Asp Leu Pro Lys Ala Asp Gly Gln Gly Ser Thr Thr Met Leu 500 505 510 Val Asp Thr Val Phe Glu Met Asn Tyr Ala Thr Gly Gln Trp Thr Arg 515 520 525 Phe Lys Lys Tyr Lys Pro Met Thr Asn Val Ser 530 535

<210> 3927

<211> 712

<212> PRT

<213> Homo sapiens

20

<400> 3927

Met Leu Lys Asp Tyr Leu Ser Val Ala Arg Asp Ala Leu Arg Thr Gln

1 5 10 15

Lys Glu Leu Tyr His Val Lys Glu Gln Arg Leu Ala Leu Ala Leu Asp

Glu Tyr Val Arg Leu Asn Asp Ala Tyr Lys Glu Lys Ser Ser His

30

25

Thr Ser Leu Phe Ser Gly Ser Ser Ser Ser Thr Lys Tyr Asp Pro Asp 50 55 60

40

lle Leu Lys Ala Glu lle Ser Thr Thr Arg Leu Arg Val Lys Glu Leu 65 70 75 80

Lys	Arg	Glu	Leu	Ser	Gln	Met	Lys	Gln	Glu	Leu	Leu	Tyr	Lys	Glu	Gln
				85					90					95	
Gly	Phe	Glu	Thr	Leu	Gln	Gln	He	Asp	Lys	Lys	Met	Ser	G1y	Gly	Gln
			100					105					110		
Ser	Gly	Tyr	Glu	Leu	Ser	Glu	Ala	Lys	Ala	lle	Leu	Thr	G1u	Leu	Lys
		115					120					125			
Ser	11e	Arg	Lys	Ala	lle	Ser	Ser	Gly	Glu	Lys	Glu	Lys	Gln	Asp	Leu
	130					135					140				
Met	Gln	Ser	Leu	Ala	Lys	Leu	Gln	Glu	Arg	Phe	His	Leu	Asp	Gln	Asn
145					150					155					160
He	Gly	Arg	Ser	Glu	Pro	Asp	Leu	Arg	Cys	Ser	Pro	Val	Asn	Ser	His
				165					170					175	
Leu	Cys	Leu	Ser	Arg	G1n	Thr	Leu	Asp	Ala	Gly	Ser	Gln	Thr	Ser	He
			180					185					190		
Ser	Gly	Asp	lle	Gly	Val	Arg	Ser	Arg	Ser	Asn	Leu	Ala	Glu	Lys	Val
		195					200					205			
Arg	Leu	Ser	Leu	Gln	Tyr	Glu	Glu	Ala	Lys	Arg	Ser	Met	Ala	Asn	Leu
	210					215					220				
	He	Glu	Leu	Ser		Leu	Asp	Ser	Glu		Trp	Pro	Gly	Ala	
225					230					235					240
Asp	He	Glu	Lys	Glu	Lys	Leu	Met	Leu		Asn	Glu	Lys	Glu		Leu
				245					250					255	
Leu	Lys	Glu		G1n	Phe	Va]	Thr		Gln	Lys	Arg	Thr		Asp	Glu
			260					265		_			270		_
Leu	Glu		Leu	Glu	Ala	Glu		GIn	Arg	Leu	GIu		Glu	Leu	Leu
	., .	275	0.1	m)	D	6	280				6.1	285	,		,
Ser		Arg	Gly	Thr	Pro		Arg	Ala	Leu	Ala		Arg	Leu	Arg	Leu
C1	290				C1	295	,	C1			300	C1	TI	TI	,
	61u	Arg	Arg	Lys		Leu	Leu	61n	Lys		GIU	61 <b>u</b>	inr	Inr	
305	TI	TI	т.	1	310	<b>C</b> .	C1	1	,	315	1	C	А Т.	C	320
Leu	ınr	ınr	lyr	Leu	H1S	Ser	GIN	Leu		Ser	Leu	ser	Ala		Inr
1	C		C	325	C1	C	C	1	330	C	1	A 1	C	335	Λ
Leu	ser	мет		Ser	OTY	ser	ser		ΩŢŸ	ser	Leu	ита	5er 350	ser	нгg
Clu	Som	Lou	340	The	Son	Son	Ana	345	Sar	Lou	Ace	Son		Sor	Son
оту	261	355	ASII	Thr	061	261	360	оту	Sel	Leu	лы	365	Leu	961	261
		ن ر.ر.					000					000			

Thr	Glu	Leu	Tyr	Tyr	Ser	Ser	Gln	Ser	Asp	Gln	He	Asp	Va]	Asp	Tyr
	370					375					380				
Gln	Tyr	Lys	Leu	Asp	Phe	Leu	Leu	Gln	Glu	Lys	Ser	Gly	Tyr	Пе	Pro
385					390					395					400
Ser	Gly	Pro	He	Thr	Thr	Пе	His	Glu	Asn	Glu	Val	Val	Lys	Ser	Pro
				405					410					415	
Ser	Gln	Pro	Gly	Gln	Ser	Gly	Leu	Cys	Gly	Val	Ala	Ala	Ala	Ala	Thr
			420					425					430		
G1y	His	Thr	Pro	Pro	Leu	Ala	Glu	Ala	Pro	Lys	Ser	Val	Ala	Ser	Leu
		435					440					445			
Ser	Ser	Arg	Ser	Ser	Leu	Ser	Ser	Leu	Ser	Pro	Pro	Gly	Ser	Pro	Leu
	450					455					460				
Val	Leu	Glu	Gly	Thr	Phe	Pro	Met	Ser	Ser		His	Asp	Ala	Ser	Leu
465					470					475					480
His	Gln	Phe	Thr		Asp	Phe	Glu	Asp		Glu	Leu	Ser	Ser	His	Phe
				485					490					495	
Ala	Asp	Ile		Leu	lle	Glu	Asn		He	Leu	Leu	Asp		Asp	Ser
			500				_	505					510		_
Gly	Gly		Ser	Gln	Ser	Leu		Glu	Asp	Lys	Asp		Asn	Glu	Cys
	•	515	15	,	Tr.	61	520	T)	4.3		V 1	525		C	
Ala		Glu	Pro	Leu	lyr		Gly	Ihr	Ala	Asp		Glu	Lys	Ser	Leu
D	530	Δ	Δ	V 1	11.	535	1	1	C1	C1	540	There	Tha	Cua	Vol.
	Lys	Arg	Arg	vai		mis	Leu	Leu	GLŸ	555	Lys	ınr	Enr	Cys	560
545 Sar	Alo	110	Val	Son	550	Clu	Sor	Vo I	Λlα		Acn	Sor	C1 <sub>v</sub>	Val	
Sei	ита	МІА	val	565	nsp	Glu	261	vai	570	Ory	изр	se.	Gry	575	1 9 1
Clu	Ala	Pho	Val		Gln	Pro	Sor	Glu		Glu	Aen	Val	Thr	Tyr	Ser
Olu	MIG	THE	580	Lys	OIII	110	561	585	inc c	oru	пор	,01	590	.,1	501
Glu	Glu	Asn		Ala	He	Val	Glu		Ala	Gln	Val	Gln		Gly	Leu
014	014	595	. (.)	717 (	110	.01	600		,,,,	0111	7.01	605	.1.0	0.19	1300
Arg	Tvr		Ala	Lvs	Ser	Ser		Phe	Met	Val	He		Ala	Gln	Leu
6	610			,		615					620				
Arg		Leu	His	Ala	Phe		11e	Pro	His	Thr		Lys	Val	Tyr	Phe
625					630					635		-		•	640
	Val	Ala	Val	Leu		Ser	Ser	Thr	Asp		Ser	Cys	Leu	Phe	Arg
_				645					650					655	_

Thr Lys Val His Pro Pro Thr Glu Ser Ile Leu Phe Asn Asp Val Phe Affective Formula of the Ser In Ser

<210> 3928

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3928

Met Gly Ser His Tyr Val Ala Gln Val Gly Val Gln Trp Leu Phe Ile 1 5 10 15

Gly Met Val Ile Val His Cys Ser Leu Glu Leu Val Ala Ser Ser Asp 20 25 30

Arg Pro Ala Ser Ala Ser Arg Val Ala Arg Thr Ile Tyr Ala His Pro
35 40 45

Phe Ala Trp Leu Lys Leu Tyr Ser Phe Cys Ser Tyr Pro His Pro Cys
50 55 60

Val Phe Ile Ser Arg Lys Ser Thr Ile Ser Phe Ile His Met Gly Leu
65 70 75 80

Thr lle Ser Tyr His Gln Ser Ser Gly Val Met Asn Gly Met Leu Leu 85 90 95

Phe Tyr Leu Tyr

100

<210> 3929

<211> 933

<212> PRT

<213> Homo sapiens

<400	)> 39	929													
Met	Ser	Cys	Ser	Leu	Leu	Pro	Ala	Leu	Pro	Leu	Val	Pro	Pro	Gly	Thr
1				5					10					15	•
His	Asn	Pro	He	Lys	Thr	Asn	Trp	Met	Ala	Trp	His	Gly	Gly	Ser	Cys
			20					25					30		
Leu	Ser	Ser	G1n	His	Tyr	Gly	G] y	Pro	Arg	Arg	Val	Asp	His	Leu	Arg
		35					40					45			
Ser	Gly	Val	Gln	Asp	Gln	Pro	Asp	Gln	His	Gly	Glu	Thr	Leu	Ser	Val
	50					55					60				
Leu	Lys	Ile	Lys	Lys	Lys	Leu	Ala	Arg	Cys	Gly	Gly	Val	Arg	Leu	G1 y
65					70					75					80
Arg	Leu	Arg	Gln	Glu	Asn	Arg	Leu	Asn	Thr	Ala	Thr	Ser	Leu	Thr	Ala
				85					90					95	
Glu	Gly	Ala	Val	Ser	Gln	Asp	His	Ala	Thr	Ala	Leu	Gln	Pro	Gly	Arg
			100					105					110		
Gln	Ser	Lys	Thr	Leu	Ser	Gln	Arg	Asn	Lys	Thr	Asn	Trp	Arg	Pro	Pro
		115					120					125			
Gln	Val	Ala	Gly	Ser	Gly	Glu	Gly	Leu	His	Leu	Cys	Thr	Pro	Pro	Trp
	130					135					140				
Leu	Ser	Val	Ala	Asp	Pro	Gln	Ala	Phe	Asn	Val	Val	Phe	Glu	Lys	Ala
145					150					155					160
He	Gln	Arg	Thr	Thr	Pro	Ala	Asn	Glu	Val	Lys	GIn	Arg	Val	He	Asn
				165					170					175	
Leu	Thr	Asp	Glu	He	Thr	Tyr	Ser	Val	Tyr	Met	Tyr	Thr	Ala	Arg	Gly
			180					185					190		
Leu	Phe	Glu	Arg	Asp	Lys	Leu	lle	Phe	Leu	Ala	Gln	Val	Thr	Phe	Gln
		195					200					205			
Val	Leu	Ser	Met	Lys	Lys	Glu	Leu	Asn	Pro	Val	Glu	Leu	Asp	Phe	Leu
	210					215					220				
Leu	Arg	Phe	Pro	Phe	Lys	Ala	Gly	Val	Val	Ser	Pro	Val	Asp	Phe	Leu
225					230					235					240
Gln	His	Gln	Gly		Gly	Gly	Пe	Lys		Leu	Ser	G] u	Met	Asp	Glu
				245					250					255	
Phe	Lys	Asn	Leu	Asp	Ser	Asp	Πle	G] u	G1 y	Ser	Ala	Lys	Arg	Trp	Lys

			260					265					270		
Lys	Leu	Val	Glu	Ser	Glu	Ala	Pro	Glu	Lys	Glu	11e	Phe	Pro	Lys	Glu
		275					280					285			
Trp	Lys	Asn	Lys	Thr	Ala	Leu	Gln	Lys	Leu	Cys	Met	Val	Arg	Cys	Leu
	290					295					300				
Arg	Pro	Asp	Arg	Met	Thr	Tyr	Ala	He	Lys	Asn	Phe	Val	Glu	Glu	Lys
305					310					315					320
Met	Gly	Ser	Lys	Phe	Val	Glu	Gly	Arg	Ser	Val	Glu	Phe	Ser	Lys	Ser
				325					330					335	
Tyr	Glu	Glu	Ser	Ser	Pro	Ser	Thr	Ser	He	Phe	Phe	lle	Leu	Ser	Pro
			340					345					350		
G1y	Val	Asp	Pro	Leu	Lys	Asp	Val	Glu	Ala	Leu	Gly	Lys	Lys	Leu	Gly
		355					360					365			
Phe	Thr	He	Asp	Asn	Gly	Lys	Leu	His	Asn	Va]	Ser	Leu	Gly	Gln	Gly
	370					375					380				
Gln	Glu	Val	Val	Ala	Glu	Asn	Ala	Leu	Asp	Val	Ala	Ala	Glu	Lys	Gly
385					390					395					400
His	Trp	Val	Ile	Leu	Gln	Asn	Ile	His	Leu	Val	Ala	Arg	Trp	Leu	Gly
				405					410					415	
Thr	Leu	Asp	Lys	Lys	Leu	Glu	Arg	Tyr	Ser	Thr	Gly	Ser	His	Glu	Asp
			420					425					430		
Tyr	Arg	Val	Phe	Ile	Ser	Ala	Glu	Pro	Ala	Pro	Ser	Pro	Glu	Thr	His
		435					440					445			
He	He	Pro	Gln	G1y	11e	Leu	Glu	Asn	Ala	He	Lys	Пe	Thr	Asn	G] u
	450					455					460				
Pro	Pro	Thr	Gly	Met	His	Ala	Asn	Leu	His	Lys	Ala	Leu	Asp	Leu	Phe
465					•••					475					480
Thr	Gln	Asp	Thr		Glu	Met	Cys	Thr		Glu	Met	Glu	Phe		Cys
				485					490					495	
Met	Leu	Phe		Leu	Cys	Tyr	Phe		Λla	Val	Val	Ala	Glu	Arg	Arg
			500					505	_			ъ.	510		
Lys	Phe		Ala	Gln	Gly	Trp		Arg	Ser	Tyr	Pro		Asn	Asn	Gly
	_	515		_			520		_		_	525			
Asp		Thr	He	Ser	He		Val	Leu	Tyr	Asn		Leu	Glu	Ala	Asn
	530	., -				535			_		540	۵,	0.7		
Pro	LVS	Val	Pro	Trp	Asp	Asp	Leu	Arg	IVI	Leu	Phe	GIV	G] u	He	Met

545					550					555					560
Tyr	Gly	Gly	His	Ile	Thr	Asp	Asp	Trp	Asp	Arg	Arg	Leu	Cys	Arg	Thr
				565					570					575	
Tyr	Leu	Ala	Glu	Tyr	He	Arg	Thr	Glu	Met	Leu	Glu	Gly	Asp	Val	Leu
			580					585					590		
Leu	Ala	Pro	Gly	Phe	Gln	lle	Pro	Pro	Asn	Leu	Asp	Tyr	Lys	Gly	Tyr
		595					600					605			
His	Glu	Tyr	Ile	Asp	Glu	Asn	Leu	Pro	Pro	Glu	Ser	Pro	Tyr	Leu	Tyr
	610					615					620				
Gly	Leu	His	Pro	Asn	Ala	Glu	He	Gly	Phe	Leu	Thr	Val	Thr	Ser	Glu
625					630					635					640
Lys	Leu	Phe	Arg	Thr	Val	Leu	Glu	Met	Gln	Pro	Lys	Glu	Thr	Asp	Ser
				645					650					655	
Gly	Ala	Gly	Thr	Gly	Va]	Ser	Arg	Glu	Glu	Lys	Val	Lys	Ala	Val	Leu
			660					665					670		
Asp	Asp	Ile	Leu	Glu	Lys	Ile	Pro	Glu	Thr	Phe	Asn	Met	Ala	Glu	Пе
		675					680					685			
Met	Ala	Lys	Ala	Ala	Glu	Lys	Thr	Pro	Tyr	Val	Val	Val	Ala	Phe	Gln
	690					695					700				
Glu	Cys	Glu	Arg	Met	Asn	He	Leu	Thr	Asn	Glu	Met	Arg	Arg	Ser	Leu
705					710					715					720
Lys	Glu	Leu	Asn	Leu	Gly	Leu	Lys	Gly	Glu	Leu	Thr	lle	Thr	Thr	Asp
				725					730					735	
Val	Glu	Asp	Leu	Ser	Thr	Ala	Leu	Phe	Tyr	Asp	Thr	Val	Pro	Asp	Thr
			740					745					750		
Trp	Val	Ala	Arg	Ala	Tyr	Pro	Ser	Met	Met	Gly	Leu	Ala	Ala	Trp	Tyr
		755					760					765			
Ala	Asp	Leu	Leu	Leu	Arg	lle	Arg	Glu	Leu	Glu	Ala	Trp	Thr	Thr	Asp
	770					775					780				
Phe	Ala	Leu	Pro	Thr	Thr	Val	Trp	Leu	Ala	Gly	Phe	Phe	Asn	Pro	Gln
785					790					795					800
Ser	Phe	Leu	Thr	Ala	He	Met	Gln	Ser	Met	Ala	Arg	Lys	Asn	Glu	Trp
				805					810					815	
Pro	Leu	Asp	Lys	Met	Cys	Leu	Ser	Val	Glu	Val	Thr	Lys	Lys	Asn	Arg
			820					825					830		
Glu	Asn	Met	Thr	Ala	Pro	Pro	Aro	Glu	G1v	Ser	Tyr	Val	Tvr	Glv	Lei

835 840 845 Phe Met Glu Gly Ala Arg Trp Asp Thr Gln Thr Gly Val Ile Ala Glu 850 855 860 Ala Arg Leu Lys Glu Leu Thr Pro Ala Met Pro Val Ile Phe Ile Lys 870 875 880 865 Ala Ile Pro Val Asp Arg Met Glu Thr Lys Asn Ile Tyr Glu Cys Pro 885 890 Val Tyr Lys Thr Arg Ile Arg Gly Pro Thr Tyr Val Trp Thr Phe Asn 910 900 905 Leu Lys Thr Lys Glu Lys Ala Ala Lys Trp Ile Leu Ala Ala Val Ala 915 920 925 Leu Leu Gln Val 930

<210> 3930 <211> 108 <212> PRT

<213> Homo sapiens

⟨400⟩ 3930

 Met Glu Ser Arg
 Ser Val Ala Gln Ala Gly Val Gln Trp Asp Asn Phe

 1
 5
 10
 15

 Ser Ser Leu Gln Pro Pro Pro Pro Pro Gly Phe Glu Arg Phe Ser Cys Leu
 20
 25
 30

 Ser Leu Pro Ser Ser Trp Asp Cys Met Arg Pro Pro Pro Pro His Leu Ala
 45

Asn Phe Cys 11e Phe Ser Gly Asp Gly Val Ser Pro Arg Trp Pro Gly 50 55 60

Arg Tyr Arg Thr Pro Asp Leu Arg Arg Ser Thr Arg Leu Gly Leu Pro
65 70 75 80

Arg Cys Trp Asp Tyr Arg Arg Glu Thr Gln Arg Leu Ala Cys Pro Phe
85 90 95

Tyr Val Leu Pro Ser Phe Leu Phe Phe Ser Phe Leu 100 105

<210> 3931 <211> 180 <212> PRT <213> Homo sapiens <400> 3931 Met Ser Arg Gly Cys Ser Ser Asp Leu Arg Phe His Thr Trp Leu Gly l Leu Arg Met Leu Lys Asn Ile Ile Ala Val Ala Leu Leu Met Leu Gly 25 Lys Asn Glu Lys Glu Ala Pro Ala Pro Pro Met Glu Pro Glu Val Pro 35 40 45 Glu Met Ser Gln Ser Lys Thr Glu His Met Lys Thr Pro Glu Glu Glu 60 55 Leu Gln Pro Glu Ser Ser Pro Ala Glu Thr Ser Ala Cys Lys Asp Pro 70 75 Leu Lys Pro Leu Lys Ile Arg Pro Val Ser Gln Pro Phe Val Asn Pro 90 Ala Val Lys Asn Lys Ala Glu Glu Cys Glu Thr Trp lle Asp Arg Phe 105 Arg Lys Leu Glu Asn Ala Leu Tyr Leu Cys Asp Leu Ser Asn Thr Gly 115 120 125 Val Leu Glu Lys Glu Arg Ala Arg Arg Leu lle His Asn Tyr Asn Leu 130 135 140 Ile Tyr Asn Leu Ser Leu Ser Pro Gln Lys Ile Asp Gln Ala Leu Arg 150 155 Arg Phe Arg Ser Gly Glu Asn Met Leu Leu Glu Pro Ala Leu Arg Tyr 165 170 175 Leu Lys Glu Leu

<210> 3932 <211> 106

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<212> PRT
<213> Homo sapiens
<400> 3932
Met Lys Trp Gln Arg Met Leu Cys Val His Gln Ile Pro Ser Cys Leu
Pro Glu Tyr Ser Asp Tyr Asn Ser Gln Ser Pro Leu Tyr Leu Asp Gly
             20
                                 25
Ala Val Glu Leu Phe Cys Gly Leu Cys Ser Val Gly Gly Ser Gly Ile
         35
                             40
                                                  45
Asn Leu Leu Cys Ser Pro Asn Ser Leu Ser Leu Cys Trp Arg Asp Val
                         55
                                             60
Gly Asp Leu Met Glu Asp Ala Glu Val Leu Gly Asp Val Arg Ala Met
                     70
                                          75
65
                                                              80
Arg Trp Lys Ser Pro Gly Pro Arg Val Thr Val Trp Asn Arg Asp Pro
                                                          95
Thr Ala Leu Glu His Glu 11e Ser Glu Lys
            100
                                105
<210> 3933
<211> 656
<212> PRT
<213> Homo sapiens
<400> 3933
Met Ala Val Pro Met Pro Ser Lys Arg Arg Ser Leu Val Val Gln Thr
                                     10
Ser Met Asp Ala Tyr Thr Pro Pro Asp Thr Ser Ser Gly Ser Glu Asp
             20
                                 25
                                                      30
Glu Gly Ser Val Gln Gly Asp Pro Gln Gly Thr Pro Thr Ser Ser Gln
                                                  45
Gly Ser lle Asn Met Glu His Trp lle Ser Gln Ala lle His Gly Ser
    50
```

Thr Thr Ser Thr Thr Ser Ser Ser Ser Thr Gln Ser Gly Gly Ser Gly

75

80

70

Ala	Ala	His	Arg	Leu	Ala	Asp	Val	Met	Ala	Gln	Thr	His	He	Glu	Asn
				85					90					95	
His	Ser	Ala	Pro	Pro	Asp	Val	Thr	Thr	Tyr	Thr	Ser	Glu	His	Ser	He
			100					105					110		
G1n	Val	Glu	Arg	Pro	Gln	Gly	Ser	Thr	Gly	Ser	Arg	Thr	Ala	Pro	Lys
		115					120					125			
Tyr	Gly	Asn	Ala	Glu	Leu	Met	Glu	Thr	Gly	Asp	Gly	Val	Pro	Val	Ser
	130					135					140				
Ser	Arg	Val	Ser	Ala	Lys	Ile	Gln	Gln	Leu	Val	Asn	Thr	Leu	Lys	Arg
145					150					155					160
Pro	Lys	Arg	Pro	Pro	Leu	Arg	Glu	Phe	Phe	Val	Asp	Asp	Phe	Glu	Glu
				165					170					175	
Leu	Leu	Glu	Val	Gln	Gln	Pro	Asp	Pro	Asn	Gln	Pro	Lys	Pro	Glu	Gly
			180					185					190		
Ala	Gln	Met	Leu	Ala	Met	Arg	G1 y	Glu	Gln	Leu	Gly	Val	Val	Thr	Asn
		195					200					205			
Trp	Pro	Pro	Ser	Leu	Glu	Ala	Ala	Leu	Gln	Arg	Trp	Gly	Thr	Ile	Ser
	210					215					220				
Pro	Lys	Ala	Pro	Cys	Leu	Thr	Thr	Met	Asp	Thr	Asn	G1y	Lys	Pro	Leu
225					230					235					240
Tyr	He	Leu	Thr	Tyr	Gly	Lys	Leu	Trp	Thr	Arg	Ser	Met	Lys	Val	Ala
				245					250					255	
Tyr	Ser	He	Leu	His	Lys	Leu	Gly	Thr	Lys	Gln	Glu	Pro	Met	Val	Arg
			260					265					270		
Pro	Gly	Asp	Arg	Val	Ala	Leu	Val	Phe	Pro	Asn	Asn	Asp	Pro	Ala	Ala
		275					280					285			
Phe	Met	Ala	Ala	Phe	Tyr	Gly	Cys	Leu	Leu	Ala	Glu	Val	Val	Pro	Val
	290					295					300				
Pro	He	Glu	Val	Pro	Leu	Thr	Arg	Lys	Asp	Ala	Gly	Ser	Gln	Gln	He
305					310					315					320
G1 y	Phe	Leu	Leu	Gly	Ser	Cys	Gly	Val	Thr	Val	Ala	Leu	Thr	Ser	Asp
				325					330					335	
Ala	Cys	His	Lys	Gly	Leu	Pro	Lys	Ser	Pro	Thr	Gly	Glu	He	Pro	G1n
			340					345					350		
Phe	Lys	Gly	Trp	Pro	Lys	Leu	Leu	Trp	Phe	Val	Thr	Glu	Ser	Lys	His
		355					360					365			

Leu		Lys	Pro	Pro	Arg		Trp	Phe	Pro	His		Lys	Asp	Ala	Asn
	370					375					380				
Asn 385	Asp	Thr	Ala	Tyr	11e 390	Glu	Tyr	Lys	Thr	Cys 395	Lys	Asp	Gly	Ser	Val 400
Leu	Gly	Val	Thr	Va1	Thr	Arg	Thr	Ala	Leu	Leu	Thr	His	Cys	G1n	Ala
				405					410					415	
Leu	Thr	Gln	Ala	Cys	Gly	Tyr	Thr	Glu	Ala	Glu	Thr	lle	Val	Asn	Val
			420					425					430		
Leu	Asp	Phe	Lys	Lys	Asp	Val	Gly	Leu	Trp	His	Gly	Ile	Leu	Thr	Ser
		435					440					445			
Val	Met	Asn	Met	Met	His	Val	Ile	Ser	Ile	Pro	Tyr	Ser	Leu	Met	Lys
	450					455					460				
Val	Asn	Pro	Leu	Ser	Trp	He	Gln	Lys	Val	Cys	Gln	Tyr	Lys	Ala	Lys
465					470					475					480
Val	Ala	Cys	Val	Lys	Ser	Arg	Asp	Met	His	Trp	Ala	Leu	Val	Ala	His
				485					490					495	
Arg	Asp	Gln	Arg	Tyr	Ile	Asn	Leu	Ser	Ser	Leu	Arg	Met	Leu	lle	Val
			500					505					510		
Ala	Asp	Gly	Ala	Asn	Pro	Trp	Ser	He	Ser	Ser	Cys	Asp	Ala	Phe	Leu
		515					520					525			
Asn	Val	Phe	Gln	Ser	Lys	Gly	Leu	Arg	Gln	Glu	Val	lle	Cys	Pro	Cys
	530					535					540				
Ala	Ser	Ser	Pro	Glu	Ala	Leu	Thr	Val	Ala	lle	Arg	Arg	Pro	Thr	Asp
545					550					555					560
Asp	Ser	Asn	Gln	Pro	Pro	Gly	Arg	Gly	Val	Leu	Ser	Met	His	Gly	Leu
				565					570					575	
Thr	Tyr	Gly	Val	lle	Arg	Va]	Asp	Ser	Glu	Glu	Lys	Leu	Ser	Va]	Leu
			580					585					590		
Thr	Val	Gln	Asp	Va]	Gly	Leu	Val	Met	Pro	Gly	Ala	lle	Met	Cys	Ser
		595					600					605			
Val	Lys	Pro	Asp	Gly	Val	Pro	Gln	Leu	Cys	Arg	Thr	Asp	Glu	He	Gly
	610					615					620				
Glu	Leu	Cys	Val	Cys	Ala	Va]	Ala	Thr	G1 y	Thr	Ser	Tyr	Tyr	G1 y	Leu
625					630					635					640
Ser	Gly	Met	Thr	Lys	Asn	Thr	Phe	Glu	His	Thr	Ser	Asn	Lys	Gly	Lys
				645					650					655	

<210> 3934 <211> 181 <212> PRT <213> Homo sapiens <400> 3934 Met Leu Ile Met Tyr Glu Gln Arg Lys Asp Ile Lys Leu Glu Leu Thr 1 5 10 15 Phe Lys Gly Glu Ala Lys His Lys Arg Leu Lys Asn Leu Gln Thr Ser 25 His Val Val Glu Lys Lys Ser Pro Phe Ser Gly Glu Gln Phe Arg Leu 40 45 Ala Ala Glu Ile Cys lle Ala Lys Arg Lys Ala His Ala Asp Ser His 55 60 Asp Asn Gly Gly Asn Ala Ser Lys Ala Phe Gln Arg Ser Leu Trp Gln 70 75 Pro Leu Pro Ser Gln Ala Trp Arg Pro Gly Arg Thr Glu Trp Phe Cys 85 90 Gly Pro His Leu Glu Pro Asp Tyr Pro Val Gln Ala Trp Asp Thr Ala 105 Pro Cys Ile Pro Ala Ile Leu Ala Pro Ala Val Ala Gln Arg Gly Pro 125 115 120 Gly Thr Ala Trp Ala Thr Ala Ser Glu Gly Ala Asn His Lys Pro Trp 130 135 140 Trp Phe Pro His Ala Val Lys Pro Val Gly Met Gln Ser Ala Arg Val 150 155 Glu Ala Trp Glu Pro Pro Pro Gly Phe Gln Arg Met Cys Gly Lys Ala 165 170 175

<210> 3935 <211> 129

Trp Met Ser Arg Gln

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<212> PRT
<213> Homo sapiens
⟨400⟩ 3935
Met Ala Cys Arg Glu Arg Ile Gly Asp Asn Ser Gly Pro Gln Arg Arg
Ala Ala Thr Glu Gly Glu Ala Gly Glu Arg Ala Ala Pro Ala Leu
                                 25
Gly Arg Val Leu Trp Ser Thr Gln Lys Asp Cys Pro Gly Ser Lys Gly
         35
                             40
                                                 45
Pro Glu Glu Lys Ala Ala Leu Gly Ser Ala Pro Pro Ala Gly Ser Leu
                                             60
                         55
Leu Pro Arg Glu Ala Glu Arg Cys Pro Pro Thr Arg Arg Ala Leu Cys
                     70
                                         75
65
                                                              80
Tyr Pro Val Leu Ser Gly Phe Ala Glu Pro Ser Thr Thr Gln Pro Arg
Pro Pro Glu Lys Thr Pro Leu Thr Pro Thr Ser Cys His Pro Thr Ala
                                105
Cys Trp Gly Asp Arg Pro Gln Cys Leu Ile His Gly Leu Leu Arg Arg
                            120
        115
                                                 125
Phe
<210> 3936
<211> 533
<212> PRT
<213> Homo sapiens
<400> 3936
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Met Leu Pro Arg Gln Ala Ser Ile Ser Cys Ala Gln Gly Ile Leu Leu

Pro Gln Pro Ser Glu Leu Leu Arg Leu Gln Leu Asn Leu Val Met Asn

Glu Gln Lys Glu Lys Ile Thr Glu Lys Val Ile Leu Ser Met Thr Ala

40

30

45

20

Lys	Glu	His	His	Lys	Glu	Gln	Glu	Glu	Val	Ser	Arg	Arg	He	Asp	Glu
	50					55					60				
Leu	Gln	Thr	Ala	lle	Lys	Ser	Asn	He	Gly	His	Leu	Cys	Lys	Leu	Gly
65					70					75					80
Pro	Gln	Leu	Gln	Ala	Glu	Gln	Glu	Gln	Phe	Ser	Ser	Tyr	Val	Tyr	Gln
				85					90					95	
His	Пе	Lys	Ser	Leu	Pro	Ala	Asn	Thr	Leu	Val	Pro	Gly	Gly	Leu	Gln
			100					105					110		
Leu	Lys	Val	Phe	Glu	Asn	Gly	Lys	Asn	Thr	Gly	Glu	Ile	Ser	Val	Gly
		115					120					125			
He	Ser	Lys	Lys	Asp	Leu	Gly	Ser	Asp	Ser	Pro	He	Gln	Thr	Asp	His
	130					135					140				
Met	Met	Glu	Arg	Leu	Leu	Leu	Lys	He	His	Gln	Arg	Leu	Gln	Gly	Ser
145					150					155					160
Ser	He	Asn	Pro	Pro	Gly	Leu	Asn	Tyr	Ser	Ser	Met	Arg	Leu	Phe	Asp
				165					170					175	
Glu	Asn	Gly	Gln	Glu	He	Lys	Asn	Pro	Leu	Ser	Leu	Lys	Asn	Glu	Gln
			180					185					190		
Lys	lle	Trp	Val	Ser	Tyr	Gly	Arg	Ala	Tyr	Arg	Ser		Leu	Asn	Leu
		195					200					205			
Ala		Gly	Leu	Thr	Phe		Arg	Val	Ser	Ala		Ala	Arg	Gly	Asp
	210					215					220				
	Met	Val	Ala	Tyr		Thr	Phe	Leu	Asp		Asn	Ala	Val	Leu	
225					230					235					240
Pro	Gly	Cys	Gly	Asn	Trp	Glu	Val	Cys		Gly	Phe	Pro	lle		Phe
	_		_	245					250					255	
Asn	Cys	Thr		Gln	Gln	He	Pro		Gln	Phe	Glu	Lys		Asp	Leu
			260					265					270		
Glu	Asn		Phe	Leu	G]n	Asn		Val	Asp	Pro	Asn		Val	Leu	His
	0	275			0.1		280	C	DI	0		285	61	. 1	C
Ala		Val	Ser	He	GIy		Irp	Ser	Phe	Ser		Ser	Glu	Ala	Ser
0	290		0.1	2.2		295 D	0	7.7	,	ar.	300			C	., 1
	Arg	Ser	GIn	lle		Pro	Ser	He	Leu		Pro	Val	Ala	Ser	
305	,	7.7	re i	1	310	C1		7.1		315		A 7	7.1	TI	320
Trp	Leu	He	Inr	Lys	Inr	ыу	Met	11e	230		Arg	Ala	116	1hr 335	GIn
				3/2					-5.513					. 3.3.3	

```
Gly Cys Leu Ala Ile Gly His Pro Ile Arg Val Lys Ala Ala Glu Gly
            340
                                345
Thr Ser Leu Glu Gly Tyr Lys Leu Ile Leu Gln Lys Arg His Ser Gly
        355
                            360
                                                 365
Asp Asp Ser Gln Lys Trp Val Phe Gly Thr Asp Gly Cys Ile Tyr Ser
                        375
Lys Ala Tyr Pro Gln Phe Val Leu Thr Tyr Leu Glu Glu Leu Asn Ala
                    390
                                        395
Gln Val Asp Val Thr Gln Thr Glu Tyr His Ile His His Gly Ala Trp
                405
                                    410
Thr Thr Ala His Gln Glu His Gly Arg Asn Leu Ala Glu Glu Val Leu
                                425
Gln Glu Ser Ala Ser Asn Leu Gly Leu Lys Gln Leu Pro Glu Pro Ser
        435
                            440
                                                445
Asp Thr His Leu Met Pro Glu Gly Ser Leu Glu Glu Thr Gly Glu Leu
                        455
                                             460
Thr Val Ala Leu Val Arg Lys Leu Glu Glu Lys His Pro Lys Ala Ser
                    470
                                        475
Ala Gln Arg Trp Ala Ile Lys His Glu Gly Thr Ser Lys Pro Gly Gln
                485
                                    490
Trp Lys His Ser Arg Val Glu Asn Pro Leu Trp Asn Lys Leu Thr Tyr
            500
                                505
Met Trp Pro Val Leu Pro Ser Gly Gln Leu Asn Glu Ala Met Gln Thr
        515
                            520
                                                 525
Glu Gln Gly Arg Arg
    530
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<211> 234

<212> PRT

<213> Homo sapiens

<400> 3937

Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys Arg Ile His Glu

1 5 10 15

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Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln Pro Val Glu Cys
             20
                                 25
Ala lle Val lle Asn Ala Ala Gly Ala Trp Ser Ala Gln lle Ala Ala
                             40
         35
                                                  45
Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu Gln Gly Thr Lys
                         55
                                              60
Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val Trp His Cys Pro
                     70
                                         75
                                                              80
Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp Thr Ser Gly Ala
                 85
                                     90
Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu Gly Gly Arg Ser
                                105
Pro Thr Glu Glu Glu Pro Asp Pro Ala Asn Leu Glu Val Asp His
        115
                            120
Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala Leu Arg Val Pro
    130
                        135
                                             140
Ala Phe Glu Thr Leu Lys Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp
                    150
                                        155
                                                             160
Tyr Asn Thr Phe Asp Gln Asn Gly Val Val Gly Pro His Pro Leu Val
                165
                                    170
                                                         175
Val Asn Met Tyr Phe Ala Thr Gly Phe Ser Gly His Gly Leu Gln Gln
                                185
Ala Pro Gly Ile Gly Arg Ala Val Ala Glu Met Val Leu Lys Gly Arg
        195
                            200
                                                 205
Phe Gln Thr Ile Asp Leu Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu
    210
                        215
                                             220
Gly Glu Lys 11e Gln Glu Asn Asn Ile 11e
225
                    230
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<211> 232

<212> PRT

<213> Homo sapiens

<400> 3938

Met	Ala	Asn	Tyr	Tyr	Glu	Val	Leu	Gly	Val	Gln	Ala	Ser	Ala	Ser	Pro
. 1				5					10					15	
Glu	Лѕр	He	Lys	Lys	Ala	Tyr	Arg	Lys	Leu	Ala	Leu	Arg	Trp	His	Pro
			20					25					30		
Asp	Lys	Asn	Pro	Asp	Asn	Lys	Glu	Glu	Ala	Glu	Lys	Lys	Phe	Lys	Leu
		35					40					45			
Val	Ser	Glu	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Ser	Lys	Lys	Arg	Ser	Leu
	50					55					60				
Tyr	Asp	Arg	Ala	Gly	Cys	Asp	Ser	Trp	Arg	Ala	Gly	Gly	Gly	Ala	Ser
65					70					75					80
Thr	Pro	Tyr	His	Ser	Pro	Phe	Asp	Thr	Gly	Tyr	Thr	Phe	Arg	Asn	Pro
				85					90					95	
Glu	Asp	He	Phe	Arg	Glu	Phe	Phe	Gly	Gly	Leu	Asp	Pro	Phe	Ser	Phe
			100					105					110		
Glu	Phe	Trp	Asp	Ser	Pro	Phe	Asn	Ser	Asp	Arg	Gly	Gly	Arg	Gly	His
		115					120					125			
Gly	Leu	Arg	Gly	Ala	Phe	Ser	Ala	Gly	Phe	Gly	Glu	Phe	Pro	Ala	Phe
	130					135					140				
Met	Glu	Ala	Phe	Ser	Ser	Phe	Asn	Met	Leu	G1 y	Cys	Ser	Gly	Gly	Ser
145					150					155					160
His	Thr	Thr	Phe	Ser	Ser	Thr	Ser	Phe	Gly	Gly	Ser	Ser	Ser	Gly	Ser
				165					170					175	
Ser	Gly	Phe	Lys	Ser	Val	Met	Ser	Ser	Thr	Glu	Met	He	Asn	Gly	His
			180					185					190		
Lys	Val	Thr	Thr	Lys	Arg	11e	Val	Glu	Asn	Gly	Gln	Glu	Arg	Val	Glu
		195					200					205			
Val	Glu	Glu	Asp	Gly	Gln	Leu	Lys	Ser	Val	Thr	Val	Asn	Gly	Lys	Glu
	210					215					220				
Gln	Leu	Lys	Trp	Met	Asp	Ser	Lys								
225					230										

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3939 Met Ala Gln Gln Arg Ala Leu Pro Gln Ser Lys Glu Thr Leu Leu Gln 1 Ser Tyr Asn Lys Arg Leu Lys Asp Asp Ile Lys Ser Ile Met Asp Asn 25 Phe Thr Glu Ile Ile Lys Thr Ala Lys Ile Glu Asp Glu Thr Gln Val 40 Ser Arg Ala Thr Gln Gly Glu Gln Asp Asn Tyr Glu Met His Val Arg 50 55 60 Ala Ala Asn Ile Val Arg Ala Gly Glu Ser Leu Met Lys Leu Val Ser 70 75 Asp Leu Lys Gln Phe Leu 11e Leu Asn Asp Phe Pro Ser Val Asn Glu 85 90 95 Ala 11e Asp Gln Arg Asn Gln Gln Leu Arg Thr Leu Gln Glu Glu Cys 105 Asp Arg Lys Leu Ile Thr Leu Arg Asp Glu Ile Ser Ile Asp Leu Tyr 120 Glu Leu Glu Glu Glu Tyr Tyr Ser Ser Arg Tyr Lys 130 135 140 <210> 3940 <211> 361 <212> PRT <213> Homo sapiens <400> 3940 Met Trp Lys Glu Asn Gly Lys Lys Pro Gly Ser Phe Pro Thr Gln Leu 1 5 10 15 Arg Pro Asn Tyr Glin Leu Asn Ser Ser Arg Asn Met Leu Thr Ser Thr 25

Ala Val Lys His Asp Leu Ala Glu Ser Phe Pro Phe Trp Ala Ser Lys 40

Gly Lys Leu Glu Trp Gln His Ile His Gln Gln Pro Pro Tyr Ser Lys

55

50

45

Cys 65	Phe	Glu	Asp	HIS	Leu 70	Glu	GIn	Lys	lyr	75	GIn	Leu	Phe	Irp	61y 80
Leu	Pro	Ser	Leu	His 85	Ser	Glu	Ser	Leu	His	Pro	Thr	Val	Phe	Val 95	Gln
His	Gly	Arg	Ser 100	Ser	Met	Phe	Val	Phe 105	Phe	Asn	Gly	lle	Thr 110	Asn	Thr
Ser	Met	Ser 115	His	Glu	Ser	Pro	Val	Leu	Pro	Pro	Pro	G1n 125	Pro	Leu	Phe
Leu	Pro 130	Ser	Thr	Gln	Pro	Leu 135	Pro	Leu	Pro	Gln	Thr 140	Leu	Pro	Arg	Gly
G1n 145	Ser	Leu	His	Leu	Thr 150	G1n	Va]	Lys	Ser	Leu 155	Ala	G1n	Pro	Gln	Ser 160
Pro	Phe	Pro	Ala	Leu 165	Pro	Pro	Ser	Pro	Leu 170	Phe	Leu	11e	Arg	Val 175	Cys
Gly	Val	Cys	Phe 180	His	Arg	Pro	Gln	Asn 185	Glu	Ala	Arg	Ser	Leu 190	Met	Pro
Ser	Glu	Ile 195	Asn	His	Leu	Glu	Trp 200	Asn	Val	Leu	Gln	Lys 205	Val	Gln	Glu
Ser	Val 210	Trp	Gly	Leu	Pro	Ser 215	Val	Val	Gln	Lys	Ser 220	Gln	Glu	Asp	Phe
Cys 225	Pro	Pro	Ala	Pro	Asn 230	Pro	Va]	Leu	Val	Arg 235	Lys	Ser	Phe	Lys	Val 240
His	Val	Pro	lle	Ser 245	lle	Ile	Pro	Gly	Asp 250	Phe	Pro	Leu	Ser	Ser 255	Glu
Val	Arg	Lys	Lys 260	Leu	Glu	Gln	His	11e 265	Arg	Lys	Arg	Leu	11e 270	Gln	Arg
Arg	Trp	Gly 275	Leu	Pro	Arg	Arg	11e 280	His	Glu	Ser	Leu	Ser 285	Leu	Leu	Arg
Pro	Gln 290	Asn	Lys	He	Ser	Glu 295	Leu	Ser	Val	Ser	Glu 300	Ser	lle	His	Gly
Pro 305	Leu	Asn	He	Ser	Leu 310	Val	Glu	Gly	Gln	'Arg 315	Cys	Asn	Val	Leu	Lys 320
Lys	Ser	Ala	Ser	Ser 325	Phe	Pro	Arg	Ser	Phe 330	His	Glu	Arg	Ser	Ser 335	Asn
Met	Leu	Ser	Met	Glu	Asn	Va]	G1 v	Asn	Tyr	G1n	Glv	Cvs	Ser	Gln	Glu

340 345 350

Thr Ala Pro Lys Lys Pro Ser Leu Ala
355 360

<210> 3941
<211> 266
<212> PRT
<213> Homo sapiens

<400> 3941

Met Ala Glu Ala Gly Lys Val Pro Leu Ser Leu Gly Leu Thr Gly Gly Glu Ala Ala Glu Trp Pro Leu Gln Arg Tyr Ala Arg Cys lle Pro Ser Asn Thr Arg Asp Pro Pro Gly Pro Cys Leu Glu Ala Gly Thr Ala Pro Cys Pro Thr Trp Lys Val Phe Asp Ser Asn Glu Glu Ser Gly Tyr Leu Val Leu Thr Ile Val Ile Ser Gly His Phe Phe Ile Phe Gln Gly Gln Thr Leu Leu Glu Gly Phe Ser Leu 11e Gly Ser Lys Asp Trp Leu Lys lle Val Arg Arg Val Asp Cys Leu Leu Phe Gly Thr Thr Ile Lys Asp Lys Ser Arg Leu Phe Arg Val Gln Phe Ser Gly Glu Ser Lys Glu Gln Ala Leu Glu His Cys Cys Ser Cys Val Gln Lys Leu Ala Gln Tyr lle Thr Val Gln Val Pro Asp Gly Asn lle Gln Glu Leu Gln Leu lle Pro Gly Pro Pro Arg Ala Thr Glu Ser Gln Gly Lys Asp Ser Ala Lys Ser Val Pro Arg Gln Pro Gly Ser His Gln His Ser Glu Gln Gln Gln Val 

Cys Val Thr Ala Gly Thr Gly Ala Pro Asp Gly Arg Thr Ser Leu Thr

200 195 205 Gln Leu Ala Gln Thr Leu Leu Ala Ser Glu Glu Leu Pro His Val Tyr 210 215 220 Glu Gln Ser Ala Trp Gly Ala Glu Glu Leu Gly Pro Phe Leu Arg Leu 225 230 235 240 Cys Leu Met Asp Gln Asn Phe Pro Ala Phe Val Glu Glu Val Glu Lys 245 250 255 Glu Leu Lys Lys Leu Ala Gly Leu Arg Asn 260 265

<210> 3942

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3942

Met Gln Ser Ser Trp Gln Val Pro Leu His Pro Pro Gly Ser Pro Trp

1 5 10 15

Pro Gln Leu Thr Leu Arg Ile Leu Pro Val Trp Gly Val Leu Arg Glu 20 25 30

Pro Leu Gln Ile Val Leu Glu Gln Gln Leu Val Pro Gly Asp Pro Leu 35 40 45

His Gly Leu Gln His Val Val Leu Gln Arg Gln Val Pro Ala Tyr Leu 50 55 60

Leu Leu Leu Trp Gly Gln Arg Glu His Trp Ala Leu Gln Gly His Val 65 70 75 80

Cys Gly Cys Gln Pro His Arg Leu Leu Ala Thr Thr Ala Pro Gly Ser 85 90 95

Cys Pro Glu Leu Ala Ala Gln Asn

100

<210> 3943

<211> 1080

<212> PRT

## <213> Homo sapiens

<400	)> 39	943													
Met	Leu	Arg	Leu	Pro	Lys	Lys	Arg	Leu	Pro	Arg	Phe	Glu	Gln	Val	G1n
1				5					10					15	
Asp	Glu	Asp	Thr	Tyr	Leu	Glu	Asn	Leu	Ala	Пе	Gln	Arg	Asn	Ala	Ser
			20					25					30		
Ala	Phe	Phe	Glu	Lys	Tyr	Asp	Arg	Ser	Glu	He	Gln	Glu	Leu	Leu	Thr
		35					40					45			
Thr	Ala	Leu	Val	Ser	Trp	Leu	Ser	Ala	Lys	Glu	Asp	Val	Arg	Ser	Gln
	50					55					60				
Val	Asp	Leu	Pro	Cys	Gly	He	Met	Ser	Gln	Met	Asn	Asn	Val	Gly	Phe
65					70					75					80
Ser	Thr	Ala	He	Leu	Leu	Thr	Pro	Val	Asp	Pro	Thr	Ala	Leu	Leu	Asp
				85					90					95	
Tyr	Arg	Glu	Val	His	Gln	Met	He	Arg	Glu	Leu	Ala	He	Gly	He	Tyr
			100					105					110		
Cys	Leu	Asn	Gln	Ile	Pro	Ser	lle	Ser	Leu	Glu	Ala	Asn	Tyr	Asp	Gln
		115					120					125			
Ser	Ser	Ser	Cys	Gln	Leu	Pro	Pro	Ala	Tyr	Tyr	Asp	Thr	Arg	He	Gly
	130					135					140				
Gln	He	Leu	He	Asn	He	Asp	Tyr	Met	Leu	Lys	Ala	Leu	Trp	His	Gly
145					150					155					160
He	Tyr	Met	Pro	Lys	Glu	Lys	Arg	Ala	Arg	Phe	Ser	Glu <sup>.</sup>	Leu	Trp	Arg
				165					170					175	
Ala	He	Met	Asp	lle	Asp	Pro	Asp	Gly	Lys	Pro	Gln	Thr	Asn	Lys	Asp
			180					185					190		
He	Phe		Glu	Phe	Ser	Ser		Gly	Leu	Thr	Asp		Thr	Arg	Asp
		195					200					205			
Pro		Phe	Asn	Glu	He	Tyr	Asp	Glu	Asp	Val		Glu	Asp	Pro	Thr
	210					215					220				
	Asp	Pro	Asn	Ser		Glu	Glu	Thr	Ala		Phe	Met	Lys	Tyr	
225					230					235					240
Glu	Asn	He	Met		Lys	Leu	Thr	Phe		Thr	Thr	G1n	He		Gln
_				245					250	_		_		255	
Tyr	Glu	Asn	Val	Phe	He	Phe	Glu	Thr	Gly	Tyr	Trp	Leu	Thr	Asn	Ala

			260					265					270		
Ile	Lys	Tyr	Asn	Gln	Asp	Tyr	Leu	Asp	lle	Cys	Thr	Tyr	Gln	Arg	Leu
		275					280					285			
Gln	Gln	Arg	Leu	Tyr	Leu	Gln	Lys	Lys	He	He	Gln	Lys	His	Phe	Glu
	290					295					300				
Lys	Lys	Lys	Asp	He	Arg	Arg	Gly	He	Gly	Tyr	Leu	Lys	Leu	11e	Cys
305					310					315					320
Phe	Leu	lle	Pro	Phe	Leu	Leu	Ser	Leu	Lys	Lys	Lys	Met	Lys	Va]	Pro
				325					330					335	
Tyr	Leu	Ser	Ser	Leu	Leu	Gln	Pro	Phe	Ser	Asp	Asp	Lys	Val	Lys	Thr
			340					345					350		
Glu	Arg	Glu	Leu	Pro	Pro	Phe	He	Tyr	Gly	Arg	Asp	Phe	Lys	Cys	Gln
		355					360					365			
Asn	Phe	His	Tyr	Lys	Glu	Asn	Gln	Tyr	Phe	His	Val	His	Gly	Gly	He
	370					375					380				
Glu	Phe	Asp	Ile	Ser	Thr	Pro	Ser	He	Glu	Asn	Ala	Leu	Glu	Asp	Phe
385					390					395					400
Gln	Lys	Asn	Leu	Glu	Lys	11e	Arg	Asp	Cys	Ala	Ala	Asn	Thr	Phe	Ile
				405					410					415	
Glu	Asp	Ser	Gly	Tyr	Lys	Glu	Tyr	Tyr	Ser	Ile	Pro	Val	Met	Glu	Phe
			420					425					430		
His	Gly	Lys	Ser	Tyr	Tyr	Val	He	Tyr	Phe	Glu	Leu	Glu	Thr	Phe	Tyr
		435					440					445			
Gln	Gln	Leu	Tyr	Lys	Thr	Gln	Trp	Trp	Gly	Ala	He	Asn	Glu	He	Val
	450					455					460				
Asn	Asn	Leu	Arg	Leu	Lys	Arg	Leu	Pro	Leu	Thr	Asp	Ala	Gln	Leu	His
465					470					475					480
Glu	Gln	Phe	Lys	Lys	Lys	Leu	Gly	Phe	Lys	Arg	Ala	Met	Lys	Cys	Lys
				485					490					495	
Ser	He	Pro	Phe	Gly	Met	Lys	Ser	Ala	Val	Glu	Arg	Gly	Leu	Ser	Ala
			500					505					510		
Val	Phe	His	Thr	Phe	Ser	Arg	Lys	Thr	Ser	Ser	Ser	Thr	11e	Asn	Val
		515					520					525			
Ser	Asp	Glu	Ala	Gly	Tyr	Thr	Пe	Phe	His	His	Ala	Ala	Leu	His	Asn
	530					535					540				
Arg	Val	Ser	He	He	Cys	Gln	Leu	Cys	Asn	Ala	Asn	Phe	Lys	Val	Asn

545					550					555					560
Gln	Arg	Arg	Phe	Val	Thr	Phe	Ser	Gln	Gly	Pro	Thr	Pro	Leu	His	Leu
				565					570					575	
Ala	Ala	Gln	Ala	Cys	Ser	Leu	Glu	Thr	Thr	Val	Cys	Leu	Leu	Cys	Ser
			580					585					590		
Lys	Ala	Asp	Tyr	Thr	Leu	Ser	Glu	Lys	Arg	Gly	Trp	Met	Pro	He	His
		595					600					605			
Phe	Ala	Ala	Phe	Tyr	Asp	Asn	Val	Cys	lle	Ile	Ile	Ala	Leu	Cys	Arg
	610					615					620				
Lys	Asp	Pro	Ser	Leu	Leu	Glu	Ala	G1u	Ala	Thr	Ala	Glu	Asn	Gln	Cys
625					630					635					640
Thr	Pro	Leu	Leu	Leu	Ala	Ala	Thr	Ser	Gly	Ala	Leu	Asp	Thr	He	Gln
				645					650					655	
Tyr	Leu	Phe	Ser	lle	Gly	Ala	Asn	Trp	Arg	Lys	Thr	Asp	He	Lys	Gly
			660					665					670		
Asn	Asn	Ile	He	His	Leu	Ser	Val	Leu	Thr	Phe	His	Thr	Glu	Val	Leu
		675					680					685			
Lys	Tyr	Ile	He	Lys	Leu	Asn	Ile	Pro	Glu	Leu	Pro	Val	Trp	Lys	Thr
	690					695					700				
Leu	Val	Glu	Met	Leu	Gln	Cys	Glu	Ser	Tyr	Lys	Arg	Arg	Met	Met	Ala
705					710					715					720
Val	Met	Ser	Leu	Glu	Val	lle	Cys	Leu	Ala	Asn	Asp	Gln	Tyr	Trp	Arg
				725					730					735	
Cys	11e	Leu	Asp	Ala	Gly	Thr	He	Pro	Ala	Leu	He	Asn	Leu	Leu	Lys
			740					745					750		
Ser	Ser	Lys	He	Lys	Leu	Gln	Cys	Lys	Thr	Va]	Gly	Leu	Leu	Ser	Asn
		755					760					765			
He		Thr	His	Lys	Ser	Ala	Val	His	Ala	Leu	Val	Glu	Ala	G1 y	Gly
	770					775					780				
He	Pro	Ser	Leu	He		Leu	Leu	Val	Cys		Glu	Pro	Glu	Val	His
785					790					795					800
Ser	Arg	Cys	Ala		lle	Leu	Tyr	Asp		Ala	Gln	Cys	Glu	Asn	Lys
				805					810					815	
Asp	Val	He		Lys	Tyr	Asn	G1 y	He	Pro	Ser	Leu	lle		Leu	Leu
	_		820				_	825					830		
Asn	Len	Asn	He	Glo	Asn	Val	Leu	Val	Asn	Val	Met	Asn	Cve	He	Aro

		835	•				840					845			
Val	Leu	Cys	He	G1 y	Asn	Glu	Asn	Asn	Gln	Arg	Ala	Val	Arg	Glu	His
	850					855					860				
Lys	Gly	Leu	Pro	Tyr	Leu	Πle	Arg	Phe	Leu	Ser	Ser	Asp	Ser	Asp	Val
865					870					875					880
Leu	Lys	Ala	Val	Ser	Ser	Ala	Ala	He	Ala	Glu	Val	Gly	Arg	Asp	Asn
				885					890					895	
Lys	Glu	lle	Gln	Asp	Ala	Ile	Ala	Met	Glu	G1 y	Ala	11e	Pro	Pro	Leu
			900					905					910		
Val	Ala	Leu	Phe	Lys	Gly	Lys	Gln	Ile	Ser	Val	Gln	Met	Lys	Gly	Ala
		915					920					925			
Met	Ala	Val	Glu	Ser	Leu	Ala	Ser	His	Asn	Ala	Leu	lle	Gln	Lys	Ala
	930					935					940				
Phe	Leu	Glu	Lys	Ser	Leu	Thr	Lys	Tyr	Leu	Leu	Lys	Leu	Leu	Lys	Ala
945					950					955					960
Phe	Gln	He	Asp	Val	Lys	Glu	Gln	Gly	Ala	Val	Ala	Leu	Trp	Ala	Leu
				965					970					975	
Ala	Gly	Gln	Thr	Leu	Lys	Gln	Gln	Lys	Tyr	Met	Ala	Glu	Gln	Ile	Gly
			980					985					990		
Tyr	Ser	Phe	lle	Ile	Asn	Met	Leu	Leu	Ser	Pro	Ser	Ala	Lys	Met	Glr
		995					1000					1005			
Tyr	Val	Gly	Gly	Glu	Ala	Val	lle	Ala	Leu	Ser	Lys	Asp	Ser	Arg	Met
]	1010					1015					1020				
His	Gln	Asn	G1n	He	Cys	Glu	Gly	Asn	Gly	lle	Ala	Pro	Leu	Val	Arg
1025	5				1030					1035					1040
Leu	Leu	Arg	He	Ser	Thr	He	Ala	Glu	Gly	Thr	Leu	Leu	Ser	Val	116
				1045				-	1050					1055	
Arg	Ala	Val	Gly	Ser	lle	Cys	He	Gly	Tyr	Leu	Leu	Lys	Ser	Arg	Let
		-	1060					1065					1070		
Cys	He	Asn	Thr	Phe	Cys	Leu	Gln								
	,	1075					በጸበ								

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3944

Met Arg Lys Gly Asn Leu Leu Leu Ser Trp Leu Leu Gly Pro Glu Leu

1 5 10 15

Pro Glu Leu Ser Pro Arg Ala Arg Lys Ala Asp Leu Lys Asp Glu Asn 20 25 30

Leu Lys Phe Ser Cys Trp Trp Glu Pro Arg Lys Thr Ala Gly Val Leu 35 40 45

Thr Trp Pro Phe Leu Ala Glu Leu Ala Glu Val Gly Val Leu Ala Asp
50 55 60

Gly Met Tyr Leu Gly Ala Val Ser Val Ala Gln Gln Arg Cys Arg Ala 65 70 75 80

Asp Trp Leu Ser His Trp Val Leu Pro Ala Gly Ser Pro Leu His Trp

85 90 95

Ala Phe Thr Gln Pro Cys Ser Trp Val Ser Leu Pro Cys Lys Gln Ser 100 105 110

His Asn Asn Thr Arg Ile Val

<210> 3945

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3945

Met Glu Lys Thr Gln Thr Ile Gly Arg Gly Asp Glu His Val Ile Ile

1 5 10 15

Val Thr Thr Cys Leu Glu Ala Thr Arg Met Glu Trp Gly Arg Leu Lys
20 25 30

Glu Glu 11e Phe Thr Gly Leu Thr Ser His His Ser Ser Arg Val Val
35 40 45

Val Ile Thr Pro Glu Gly Lys lle Ile Ser Val Phe Tyr Gly Leu Ile 50 55 60

Ile Gly Asp Ser Ser Cys Phe Glu Asp Thr Asn Thr Glu Ala Ser Ser

65 70 75 80

Arg Thr Tyr Ser Gln Phe Pro Trp Ser Gln Cys Cys Gln Trp Phe Tyr
85 90 95

Lys Gly Leu Met Asn Leu Tyr Leu Val Asp His Lys
100 105

<210> 3946

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3946

Met Gln Ala Ala Ser Leu Arg Ala Gly Ile Leu Gln Ile Val Gly Leu

1 5 10 15

Lys Ile Ile Arg Asn Val Glu Ala Leu Lys Ala Phe Leu Arg Asn Ser 20 25 30

Arg Ala Thr Met Ala His Gln Trp Cys Tyr Gly Ala Met Gly Ala Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$ 

Gln Phe Gly Leu Ser Tyr Leu Glu Gly Ser Ala Gly His Ser Ala Asn 50 55 60

Thr Pro Ala Phe His Ile Leu Gly Asp His Val Trp Met Ala Leu Met 65 70 75 80

Cys Pro Ile Leu Val Glu Glu His Arg Lys Ala Ser Phe Leu His Phe 85 90 95

Lys Glu Ala Arg Glu Thr Cys Glu Val Phe Ser Thr Ser Leu Val His  $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$ 

Pro

<210> 3947

<211> 150

<212> PRT

<213> Homo sapiens

```
<400> 3947
Met Ile Thr Ser Pro Cys Ser Pro Ala Ala Phe Pro Pro Pro Ser Thr
 1
                  5
                                     10
                                                          15
Ser Pro Thr Leu Arg Ala Pro His Leu Pro Ser His Pro Pro Pro Ser
                                 25
                                                      30
             20
Tyr Leu Phe Leu Tyr Asp Ser Ser Leu Arg Ala Ser Leu Ser Leu Val
                             40
                                                  45
Thr Ser Leu Ile Tyr Cys Lys Tyr Arg Lys Val Lys Ser Gly Gln Asn
     50
                         55
Arg Gln Arg Ser Ser Trp Leu Ala Ser Asn Asn Ser Tyr Asn Asn Tyr
65
                     70
                                          75
                                                              80
Ser Pro Val Asn Asn Ser Leu Leu Ser Ile Thr Ala Asp Met Phe Ser
                 85
Trp His Phe Gln Ala Tyr Ser Leu lle Cys Phe Ser Lys Asn Ser lle
                                105
Arg Val Glu Ala Thr Gly Lys Glu Ile Lys Phe Ile Ala Gly Tyr Gln
                            120
Arg Pro Arg Glu lle Arg Glu Tyr Cys Tyr Cys Tyr Tyr Pro Tyr Tyr
    130
                        135
                                             140
Tyr His Cys Leu Lys Leu
145
                    150
<210> 3948
<211> 129
<212> PRT
<213> Homo sapiens
<400> 3948
Met Thr Gln Thr His Ser Leu Arg Ser Val Phe Val Phe Gln Arg Tyr
Val Cys Ile Ser Pro Thr Leu Arg Phe Met Val Thr Gln Ser Arg Gly
             20
                                  25
                                                      30
Phe Ser Leu Ala Leu Pro Thr Ala Glu Thr Cys Ser Phe Leu Ala Arg
```

Tyr Pro Gln Gly Pro Ala Ala Gly Gly Gly Thr Ser Gln Ser Gly Trp 55 Gly Pro Pro Ser Gly Gln Asn Ile Ile Leu Trp Lys Lys Val Phe Ser 65 70 75 80 Asn Ala Phe Leu Arg Gln Asp Leu Val Leu Ser Pro Arg Val Gly Ser 85 90 Ala Val Val Gln Leu Arg Gly Asn Ser Met Leu Ala Val Leu Thr Ala 105 Leu Ala Arg Ser Arg Arg Leu Leu Cys Leu Gly Ser Tyr Phe Gly Gly 115 120 125 Thr <210> 3949 <211> 122 <212> PRT <213> Homo sapiens <400> 3949 Met Ala Glu Gly His Gly Phe Leu Lys Asp His Cys Gly Cys Cys Val 10 Asn Arg Gly Thr Ser Asp Glu Gln Asn Gln Ala Leu Asn Cys Glu Met 30 20 25 Thr Ala Glu Met Cys Lys Arg Ala Arg Trp Cys Leu Asp Leu Leu Val 40 45 Ala Ala Glu Ser Val Arg Asn Gly Trp Arg Pro Val Cys Val Gln Met 55 Glu Pro Asn Glu Leu Pro Trp Glu Gly Trp Val Gly Cys Ser Arg Val 6570 75 80 Gly Arg Glu Glu Leu Gly Asn Leu Glu Asp Ser Ser Leu Ser Asn Trp 90 Ala Glu Gly Asp Val Ile Phe Leu Lys Thr Arg Glu Lys Trp Ala Trp 105 110 Glu Gly Lys Phe Asp Leu Arg His Ala Asn

120

```
<211> 257
<212> PRT
<213> Homo sapiens
⟨400⟩ 3950
Met His Ala Lys Ile Trp Leu Met Lys Thr Ser Leu Arg Ser Gly Arg
 1
                  5
                                     10
Ala Ala Leu Arg Glu Leu Arg Ser Arg Glu Asn Phe Leu Ser Lys Leu
                                 25
Asn Arg Glu Leu Ile Glu Thr Ile Gln Glu Met Glu Asn Ser Thr Thr
                             40
Leu His Val Arg Ala Leu Leu Gln Gln Gln Asp Thr Leu Ala Thr Ile
                         55
                                             60
lle Asp lle Leu Glu Tyr Ser Asn Lys Lys Arg Leu Gln Gln Leu Lys
                     70
                                         75
                                                              80
Ser Glu Leu Gln Glu Trp Glu Glu Lys Lys Lys Cys Lys Met Ser Tyr
                 85
                                     90
Leu Glu Gln Gln Ala Glu Gln Leu Asn Ala Lys 11e Glu Lys Thr Gln
                                105
Glu Glu Val Asn Phe Leu Ser Thr Tyr Met Asp His Glu Tyr Ser Ile
        115
                            120
                                                 125
Lys Ser Val Gln Ile Ser Thr Leu Met Arg Gln Leu Gln Gln Val Lys
    130
                        135
                                             140
Asp Ser Gln Gln Asp Glu Leu Asp Asp Leu Gly Glu Met Arg Arg Lys
                    150
                                        155
Val Leu Glu Ser Leu Ser Asp Lys Ile Gln Lys Lys Lys Lys Ile
                165
                                    170
                                                         175
Leu Ser Ser Val Val Ala Val Ser Ser Gln Leu Leu Cys Gly Ser Gly
                                185
Asp Pro Gly Leu Thr Pro Thr Pro Pro Ser Ser Pro Ser Ser Ala Ser
        195
                            200
                                                 205
Arg Pro Thr Ala Ala Pro Ser Val Ser Thr Met Phe Cys Cys Pro Gly
    210
                        215
                                             220
```

Arg Gly Thr Trp Gly Pro Asp Leu Phe Phe Leu His Arg Lys Pro Ser Val Pro Met Lys Arg Leu Ser Tyr Arg Arg Cys Gly Glu Ala Arg Thr 245 250 255

Ser

<210> 3951

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3951

Met Thr Ser Ala Lys Thr Leu Arg Gly Arg His Ser Ser Thr Lys Thr

1 5 10 Leu Phe Pro Ser Glu Val Pro Phe Thr Gly Thr Gly Val Arg Thr Ser

20 25 Pro Cys Leu Leu Gly Ala lle Pro Phe Asn Leu Gln Gln Pro Leu Val

30

40

Ser Val His Asn Ala Asn Glu Val Arg Val Ala Ser Pro Gln Ala Asn 55 60

Asn Phe Pro Gln Ile Ala Ala Arg Cys Gly Pro Ala Lys Ser Gln Gly 70 65 75 80

Ala Ala 11e Ser Lys Gln Ser Pro Pro Val Leu Glu Gly Val Cys Arg 90

Asp Ala Ser Gly Glu Arg Pro Gly Pro Gly Ala Gly Leu Gln Leu Trp 100 105

Asp Lys Leu Leu Ser Gly Pro Gly Ala Thr Gln Arg Arg Gln Ala Ala 120 125

Val Gln Val Lys Pro 11e Gln His Leu Ala Pro Cys Leu Gln Ala 130 135 140

```
⟨211⟩ 113
<212> PRT
<213> Homo sapiens
<400> 3952
Met Ser His Cys Pro Arg Ala Cys Lys Leu Phe Phe Asn Phe Ser Ser
                                    10
Trp Thr Ser Leu Cys Cys Gly Ser Pro Ser Val Ser Leu Ala Ser His
             20
                                 25
                                                      30
Ser Gln Thr Gly Lys Ala Arg Ser Phe Ser Ser Leu Ala Phe Ser Ser
                             40
Ser Ile Ser Phe Leu Leu Gly His Ser Ser Val Leu Ile Tyr Ser Gly
                         55
                                             60
Phe Phe Leu Phe Lys Asn Leu Phe His Ser Tyr Val Ser Cys Gly Leu
                     70
65
                                          75
                                                              80
Asp Glu Ile Leu His Asp Phe Ile Gln Ser His Gly Thr Arg Leu Leu
                                     90
Glu Ser Ser Glu Ile Cys Leu Phe Ile Asn Pro Leu Gln Trp Asp Ser
            100
                                105
                                                     110
His
<210> 3953
<211> 166
<212> PRT
<213> Homo sapiens
<400> 3953
Met Glu Gly Thr Tyr lle Thr Ser Glu His Ser Tyr Gln Lys Pro Gln
                  5
                                     10
Ser Phe Gly Gln Asp Cys Lys Ser Leu Ala Asp Pro Gly Ser Ser Asp
                                 25
```

Asp Asp Asp Val Ser Ser Leu Glu Glu Glu Glu Glu Phe His Met Arg

Ser Lys Asn Ser Leu Gln Tyr Ser Ala Lys Glu His Gly Met Pro Glu

45

40

	50					55					60				
Lys	Asn	Pro	Ala	Glu	Gly	Asn	Thr	Val	Phe	Val	Tyr	Asn	Asp	Lys	Lys
65					70					75					80
Gly	Thr	Glu	Asp	Pro	Gly	Asp	Ser	His	Leu	Gln	Trp	Gln	Leu	Asn	Leu
				85					90					95	
Leu	Thr	llis	He	Glu	Asn	Val	Gln	Asn	Glu	Val	Thr	Ser	Arg	Met	Asp
			100					105					110		
Leu	Ile	Glu	Lys	Glu	Val	Asp	Val	Leu	Glu	Ser	Trp	Leu	Asp	Phe	Thr
		115					120					125			
Gly	Glu	Leu	Glu	Pro	Pro	Asp	Pro	Leu	Ala	Arg	Leu	Pro	Gln	Leu	Lys
	130					135					140				
Arg	His	He	Lys	Gln	Leu	Leu	He	Asp	Met	Gly	Lys	Val	Gln	Gln	He
145					150					155					160
Ala	Thr	Leu	Cys	Ser	Val										
				165											
<210	)> 39	954													
<21	1> 11	17													
<212	2> PI	T7													
<213	3> Ho	omo s	sapie	ens											
<400	0> 39	954													
Met	Lys	Lys	Val	Lys	Lys	Lys	Arg	Ser	Glu	Ala	Arg	Arg	His	Arg	Asp
1				5					10					15	
Ser	Thr	Ser	Gln	His	Ala	Ser	Ser	Asn	Ser	Thr	Ser	Gln	Gln	Pro	Ser
			20					25					30		
Pro	Glu	Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	His
		35					40					45			
Ser	Ser	Leu	G1u	Thr	Thr	Ser	Arg	Gln	Pro	Ala	Phe	G1n	Ala	Leu	Pro
	50					55					60				
Ala	Pro	Glu	He	Arg	Arg	Ser	Ser	Cys	Cys	Leu	Leu	Ser	Pro	Asp	Ala
65					70					75					80
Asn	Val	Lys	Ala	Ala	Pro	Gln	Ser	Arg	Lys	Ala	Gly	Gly	Leu	Ser	Ser

Ser Phe Ser Ser Ser Ser Leu Pro Ala Asp Gly Val Leu Gly His Pro

100 105 110 Lys Gly Trp Phe Leu 115 <210> 3955 <211> 189 <212> PRT <213> Homo sapiens <400> 3955 Met Phe Gly Ser Ser Arg Gly Gly Val Arg Gly Gly Gln Asp Gln Phe 10 Asn Trp Glu Asp Val Lys Thr Asp Lys Gln Arg Glu Asn Tyr Leu Gly 20 25 30 Asn Ser Leu Met Ala Pro Val Gly Arg Trp Gln Lys Gly Arg Asp Leu 40 Thr Trp Tyr Ala Lys Gly Arg Ala Pro Cys Ala Gly Pro Ser Arg Glu 50 55 60 Glu Glu Leu Ala Ala Val Arg Glu Ala Glu Arg Glu Ala Leu Leu Ala 70 Ala Leu Gly Tyr Lys Asn Val Lys Lys Gln Pro Thr Gly Leu Ser Lys 90 Glu Asp Phe Ala Glu Val Cys Lys Arg Glu Gly Gly Asp Pro Glu Glu 110 100 105 Lys Gly Val Asp Arg Leu Leu Gly Leu Gly Ser Ala Ser Gly Ser Val 120 Gly Arg Val Ala Met Ser Arg Glu Asp Lys Glu Ala Ala Lys Leu Gly 130 135 Leu Ser Val Phe Thr His His Arg Val Glu Ser Gly Gly Pro Gly Thr 150 155 Ser Ala Ala Ser Ala Arg Arg Lys Pro Arg Ala Glu Asp Gln Thr Glu 165 170 Ser Arg Gly Val Ser Arg Val Thr Leu Glu Glu Arg Ser

185

```
<211> 968
<212> PRT
<213> Homo sapiens
<400> 3956
Met Glu Val Thr Gly His Leu Pro Pro Leu Asn Glu Thr Ala Asn Phe
  1
                  5
                                      10
                                                          15
Ile Ser Asn Ser Lys Ile Lys Thr Ser Asp Thr Thr Gln Lys Asn Ser
                                 25
Phe Gln Ser His Ile Asn Ser Val Ala Asn Asp Ile Val Glu Ser Val
                             40
Leu Gly Lys Met Tyr Leu Val Val Val Thr Ser Leu Tyr Glu Asn Asn
     50
                         55
                                              60
Lys Ser Arg Thr Glu Val Glu Ile Ser Asp His Asn Asp Ser Leu Leu
                     70
                                          75
Met Lys Pro Leu Arg Phe Arg Glu Thr Lys Gln Ala Gly Lys Ile Ser
                 85
                                     90
                                                          95
Asn Ser Pro Arg Tyr Ala Ile Ser Gln Ala Tyr Ser Tyr Val Asp Ser
                                105
                                                     110
Gln Asn Ile Ser Val Met Glu Asn Thr Leu Leu Pro Tyr Leu Pro Leu
                            120
Gln Val Lys Lys Asp Leu 11e Gln Met Val Leu Asn Lys 11e Thr Asn
    130
                        135
                                             140
Phe Val Ser Leu Pro Leu Lys Val Ser Pro Lys Asp Asn Pro Lys Pro
                    150
                                        155
Cys Phe Lys Ala His Leu Lys Thr Arg Ser Lys Ile Thr Thr Leu Pro
                165
                                     170
                                                         175
Lys Phe Thr Lys Lys Thr His Leu Gly Leu Ser Ala Ala Lys Ala Lys
            180
                                185
Ser Lys Thr Lys Leu Gly Pro Gly Glu Lys Thr Leu Lys Asp Ser Arg
                            200
                                                 205
Ser Lys Thr Ala Ile Gly Leu Ser His Ile Met Ser Ala Gly Asp Ala
    210
                        215
                                             220
```

Lys Asn Leu Leu Asp Thr Lys Leu Pro Thr Ser Glu Leu Lys Ile Tyr

<210> 3956

225					230					235					240
Ala	Lys	Asp	He	He	Ile	Asn	He	Leu	Glu	Thr	Пе	Val	Lys	Glu	Phe
				245					250					255	
Gly	Lys	Val	Lys	Gln	Thr	Lys	Ala	Leu	Pro	Ser	Asp	Gln	He	He	Ala
			260					265					270		
Ala	Gly	Lys	He	Val	Asn	Thr	Val	Leu	Gln	Glu	Leu	Tyr	Val	Thr	Asn
		275					280					285			
Asn	Cys	Asn	Leu	Ala	Tyr	Pro	Met	Lys	Ser	Ser	His	Leu	Arg	Leu	Ser
	290					295					300				
Gln	Gly	Asn	He	Gly	Ile	Gly	Ser	Leu	Pro	Lys	Gln	Gln	Ala	Cys	Phe
305					310					315					320
Tyr	Leu	Glu	Asn	Val	Ser	Ser	Gln	Leu	Glu	His	He	Phe	Pro	Arg	G] u
				325					330					335	•
Gly	He	Phe	Lys	Lys	Leu	Phe	Asp	Lys	Trp	Gln	Thr	Glu	Ser	Asn	Asp
	÷		340					345					350		
Lys	Glu	Asn	Glu	Lys	Cys	Lys	Leu	Leu	Met	He	Ala	Glu	Λsn	Val	Leu
		355					360					365			
Thr	Glu	Ile	Ser	He	Lys	Ala	Lys	Glu	Leu	Glu	Tyr	Ser	Leu	Ser	Leu
	370					375					380				
Leu	Asn	Leu	Pro	Pro	Leu	Glu	Asn	Cys	Glu	Ser	Arg	Leu	Tyr	Asn	His
385					390					395					400
Phe	Glu	Gly	Ala	Ser	Thr	Arg	Ala	Glu	Asp	Thr	Lys	Ala	Gln	He	Asn
				405					410					415	
Met	Phe	Gly	Arg	Glu	He	Val	Glu	Met	Leu	Leu	Glu	Lys	Leu	GIn	Leu
			420					425					430		
Cys	Phe	Leu	Ser	Gln	lle	Pro	Thr	Pro	Asp	Ser	Glu	Glu	Thr	Leu	Ser
		435					440					445			
Asn	Ser	Lys	Glu	His	He	Thr	Ala	Lys	Ser	Lys	Tyr	G1 y	Phe	Pro	Asn
	450					455					460				
Lys	His	Ser	Leu	Ser	Ser	Leu	Pro	lle	Tyr	Asn	Thr	Lys	Thr	Lys	Asp
465					470					475					480
G]n	He	Ser	Val	Gly	Ser	Ser	Asn	Gln	He	Va]	G1n	G] u	He	Val	Glu
				485					490					495	
Thr	Val	Leu	Asn	Met	Leu	Glu	Ser	Phe	Val	Asp	Leu	Gln	Phe	Lys	His
			500					505					510		
Пe	Ser	Lys	Tyr	Glu	Phe	Ser	Glu	Пe	Val	Lys	Met	Pro	He	Glu	Asn

•

		515					520					525			
Leu	Ser	Ser	Ile	G1n	Gln	Lys	Leu	Leu	Asn	Lys	Lys	Met	Leu	Pro	Lys
	530					535					540				
Leu-	Gln	Pro	Leu	Lys	Met	Phe	Ser	Asp	Lys	Ser	Glu	Ser	Asn	Thr	He
545					550					555					560
Asn	Phe	Lys	Glu	Asn	lle	Gln	Asn	11e	Leu	Leu	Arg	Val	His	Ser	Phe
				565					570					575	
His	Ser	Gln	Leu	Leu	Thr	Tyr	Ala	Val	Asn	He	Ile	Ser	Asp	Met	Leu
			580					585					590		
Ala	Val	Ile	Lys	Asn	Lys	Leu	Asp	Asn	Glu	Ile	Ser	Gln	Met	Glu	Pro
		595					600					605			
Ser	Ser	lle	Ser	lle	Leu	Lys	Glu	Asn	lle	Val	Ala	Ser	Glu	lle	lle
	610					615					620				
Gly	Thr	Leu	Met	Asp	Gln	Cys	Thr	Tyr	Phe	Asn	Glu	Ser	Leu	He	Gln
625					630					635					640
Asn	Leu	Ser	Arg	Glu	Ser	Leu	Phe	Gln	Gly	Ala	Glu	Asn	Ala	Tyr	Thr
				645					650					655	
Val	Asn	Gln	Val	Glu	Leu	Ala	Thr	Asn	Met	Lys	Met	Phe	Thr	Ser	Lys
			660					665					670		
Leu	Lys	Glu	Gly	Ser	Leu	Gly	He	Asn	Pro	Ser	Gln	Val	Ser	Lys	Thr
		675					680					685			
Gly	Phe	Val	Phe	Cys	Ser	Asp	Glu	Asp	Met	Lys	Glu	Lys	Tyr	Arg	Val
	690					695					700				
Ser	Ser	Asp	Leu	Pro	Thr	Ser	Val	Arg	Ser	Ser	Val	Glu	Asp	Thr	Val
705					710					715					720
Lys	Asn	Ser	Glu		Thr	Lys	Arg	Pro	Asp	Ser	Glu	Thr	Met	Pro	Ser
				725					730					735	
Cys	Ser	Thr		Asn	Lys	Val	Gln		His	Arg	Pro	Arg	Glu	Ser	Asn
			740					745					750		
Phe	Gly		Phe	Asp	Gln	Thr		Lys	Gly	Asn	Ser		Leu	Pro	Glu
		755					760					765			
Gly		Phe	Leu	Gln	Lys	Leu	Leu	Arg	Lys	Ala		Asp	Ser	Thr	Glu
	770					775					780				
	Ala	Leu	Lys	GIn		Leu	Ser	Phe	He		Met	Gly	Lys	Gly	
785			., .	751	790	<b></b>				795		., .	., .		800
Acn	Lou	Δνα	Val	Pho	Hic	Tur	Clo	Acr	Low	l vc	Pro	$V \sim 1$	Val	Glo	Pro

				805					810					815	
Asn	Gln	He	Gln	Thr	Thr	Пe	Ser	Pro	Leu	Lys	Ile	Cys	Leu	Ala	Ala
			820					825					830		
Glu	Asn	He	Val	Asn	Thr	Val	Leu	Ser	Ser	Cys	Gly	Phe	Pro	Ser	Gln
		835					840					845			
Pro	His	Thr	Asn	Glu	Asn	Arg	Glu	lle	Met	Lys	Pro	Phe	Phe	Ile	Ser
	850					855					860				
Lys	Gln	Ser	Ser	Leu	Ser	Glu	Val	Ser	Gly	Gly	Gln	Lys	Asp	Asn	Glu
865					870					875					880
Lys	Ser	Leu	Leu	Arg	Met	Gln	Asp	Lys	Lys	Ile	Asn	Tyr	Ile	Pro	Glu
				885					890					895	
Glu	Glu	Asn	Glu	Asn	Leu	Glu	Ala	Ser	Arg	Glu	Лѕр	Ser	Ser	Phe	Leu
			900					905					910		
Gln	Lys	Leu	Lys	Lys	Lys	Glu	Tyr	Pro	Lys	He	Glu	Thr	Va]	Lys	Glu
		915					920					925			
Val	Glu	Ala	Phe	Thr	Phe	Ala	Asp	His	Glu	Met	Gly	Ser	Asn	Glu	Val
	930					935					940				
His	Leu	Ile	Ala	Arg	His	Val	Thr	Thr	Ser	Val	Val	Thr	Tyr	Leu	Lys
945					950					955					960
Asn	Phe	Glu	Thr	Thr	Gly	Arg	Cys								
				965											
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<21	1> 18	30													
<212	2> PI	RT													
<213	3> Ho	omo :	sapi	ens											
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<400	o> 39	957													

	50					55					60				
Pro	Leu	Ser	Pro	Lys	Ser	Arg	Leu	Leu	Leu	Trp	Pro	Phe	Pro	Leu	Ser
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Leu	Lys	Pro	Ala	Ser	Val	Trp	Thr	Gln	Leu	Leu	Pro	Ser	Pro	His	Ser
				85					90					95	
Arg	Arg	Gly	Cys	Ser	Ala	Leu	Leu	Glu	Arg	Pro	Pro	Pro	Leu	Asn	Ser
			100					105					110		
Ala	His	Gln	Thr	Ser	Thr	He	Gln	Pro	Leu	Arg	Gly	Pro	Gln	Ser	Tyr
		115					120					125			
Leu	Ala	He	Gly	Leu	Leu	Ala	Pro	Asn	His	Leu	Pro	Leu	Pro	Ser	Ser
	130					135					140				
Ser	Ser	Ser	Ser	Leu	His	His	Phe	Leu	He	Thr	Ser	Asp	Leu	Ser	Ser
145					150					155					160
Ser	Ala	Glu	Asp	Leu	Ser	Pro	Ser	Va]	Tyr	Thr	Glu	Trp	Pro	Leu	Ala
				165					170					175	
Glu	Asn	Pro	Pro												
			180												

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3958

Met Glu Val Thr Leu Leu Val Lys Gly Glu Pro Pro Pro Cys His His

1 5 10 15

Asp Ser Ser Gly Pro Gly His Cys Pro Gln Phe Gln Gly Lys Lys Gln
20 25 30

Met Ser Gly Ala Arg Ala Arg Ala Gln His Gln Ala His Ser Ser Gln
35 40 45

Glu Ser Thr Gln Cys Gln Val Ser Pro Cys Pro Ala Trp His Pro Arg  $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$ 

Ala Gly Cys Ser Ser His Gly Thr Asp Gly Asn Ala Lys Ala His Arg 65 70 75 80

Glu Ala Leu Ala Pro His Cys Pro Val Pro Pro Pro Pro His Ala Pro

90 95 85 Glu Arg Pro Gly Pro Cys Leu Gln Ala Pro Ala Ser Ala Pro Arg Arg 100 105 110 Glu Ala Cys Pro Ala Thr Leu Val Leu Lys Ser His Pro Trp Leu Pro 120 125 115 Val Pro Gly Lys Gln Val Gly Ser Thr Lys Pro Arg Val Pro Ala Thr 135 140 Leu Cys Thr Asp Ala Asp Phe Leu Cys Thr Leu Gly Cys Leu Leu Pro 150 155 160 145 His

<210> 3959

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3959

Met Pro Ser Ser lle Asp Ile Ile Asp Gly Thr Lys Glu Lys Lys Thr
1 5 10 15

Lys Leu Asp Gly Gly Ser Ala Ser Leu Leu Arg Leu Gln Glu Glu Leu 20 25 30

Ser Leu Pro Gln Thr Glu Val Leu Glu Phe Gly Val Pro Leu Leu Arg 35 40 45

Ala Ala Ala Trp Glu Leu Trp Pro Lys Glu Gln Gln Ile Ala Leu His 50 55 60

Leu Glu Cys Ala Cys Phe Leu Gln Val Leu Ala Cys Arg Cys Gly Ser 65 70 75 80

Cys His Gly Gly Asp Phe Val Pro Phe His His Phe Ala Val Cys Ser 85 90 95

Thr Lys Asn Ser Lys Gly Thr Ser Arg Phe Cys Thr Tyr Arg Asp Thr
100 105 110

Gly Ser Val Leu Thr Gln Val Ile Thr Glu Lys Leu Gln Leu Pro Ser 115 120 125

Pro Gln Glu Gln Arg Lys Ser Ser

130 135

<210> 3960 <211> 193 <212> PRT <213> Homo sapiens <400> 3960

Met Thr Asn Ser Thr Val Pro Asp Val Leu Cys Ile Gly Pro Pro Glu

1 5 10 15

Tyr Gln Glu Lys Lys Leu Asn Asp Val Thr Ser Phe Asp Tyr Glu Cys
20 25 30

Thr Thr Asp Phe Val Val His Gln Thr Leu Pro Tyr Gln Ser Val
35 40 45

Ser Val Asp Thr Phe Asn Ser Lys Asn Asp Val Tyr Val Ala Ile Ala 50 55 60

Gln Pro Ser Met Glu Asn Cys Met Val Leu Glu Trp Asp His 11e Glu 65 70 75 80

Met Asn Phe Arg Ser Tyr Asp Asn Ile Thr Gly Gln Ser Ile Val Gly

85 90 95

Cys Lys Ala IIe Leu IIe Asp Asp Gl<br/>n Val Phe Val Val Ala Gl<br/>n 100 105 110

Leu Phe Gly Gly Ser His Ile Tyr Lys Tyr Asp Glu Ser Trp Thr Lys
115 120 125

Phe Val Lys Phe Gln Asp Ile Glu Val Ser Arg Ile Ser Lys Pro Asn 130 135 140

Asp Tle Glu Leu Phe Gln Tle Asp Asp Glu Thr Phe Phe Val Ile Ala 145 150 155 160

Asp Ser Ser Lys Ala Gly Leu Ser Thr Val Tyr Lys Trp Asn Ser Lys 165 170 175

Gly Phe Tyr Ser Tyr Gln Pro Leu Pro Gly Pro His His Pro Pro Val 180 185 190

Glu

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<211> 267
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<400> 3961
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  1
                  5
                                                          15
Pro Thr Gly Ala Ser Gly Met Ala Ala Ala Glu Gly Pro Gly Tyr Leu
                                 25
Val Ser Pro Gln Ala Glu Lys His Arg Arg Ala Arg Asn Trp Thr Asp
                                                  45
                             40
Ala Glu Met Arg Gly Leu Met Leu Val Trp Glu Glu Phe Phe Asp Gly
     50
                         55
                                              60
Leu Lys Gln Thr Lys Arg Asn Ala Lys Val Tyr Glu Lys Met Ala Ser
                     70
                                          75
Lys Leu Phe Glu Met Thr Gly Glu Arg Arg Leu Gly Glu Glu Ile Lys
                 85
Ile Lys Ile Thr Asn Met Thr Phe Gln Tyr Arg Lys Leu Lys Cys Met
            100
                                105
                                                     110
Thr Asp Ser Glu Ser Ala Pro Pro Asp Trp Pro Tyr Tyr Leu Ala Ile
        115
                                                 125
                            120
Asp Gly 11e Leu Ala Lys Val Pro Glu Ser Cys Asp Gly Lys Leu Pro
                        135
                                             140
Asp Ser Gln Pro Pro Gly Pro Ser Thr Ser Gln Thr Glu Ala Ser Leu
                    150
                                         155
Ser Pro Pro Ala Lys Ser Thr Pro Leu Tyr Phe Pro Tyr Asn Gln Cys
                165
                                     170
                                                         175
Ser Tyr Glu Gly Arg Phe Glu Asp Asp Arg Ser Asp Ser Ser Ser Ser
                                185
Leu Leu Ser Leu Lys Phe Arg Ser Glu Glu Arg Pro Val Lys Lys Arg
        195
                             200
                                                 205
Lys Val Gln Ser Cys His Leu Gln Lys Lys Gln Leu Arg Leu Leu Glu
    210
                                             220
                        215
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Ala Met Val Glu Glu Gln Arg Arg Leu Ser Arg Ala Val Glu Glu Thr
225 230 235 240

Cys Arg Glu Ile Ser Arg Cys Tyr Ser Thr Val Cys Arg Arg Gly Cys
245 250 250

Pro Val Ala Met Glu Trp Leu Trp Thr Leu Ser

Pro Val Ala Met Glu Trp Leu Trp Thr Leu Ser

260 265

<210> 3962

<211> 238

<212> PRT

<213> Homo sapiens

<400> 3962

Met Pro Gly Arg Thr Gly Leu Ala Gly Glu Met Pro Val Gly Trp Gly
1 5 10 15

Pro Gly Arg Ala Gly Ala Ser Glu Pro Asn Glu Ser Thr Cys Ala Pro 20 25 30

Glu Ala Leu Asp Gly His Leu Gly Val Ala Arg Arg Glu Gly Pro Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$ 

Leu Gly Thr Leu Leu Gly Arg Gly Lys Gly His Cys Gln Ala Leu Ser 50 55 60

Gln Leu Gly His Cys Pro Ser Pro Ala Trp Asn Asn Tyr Ser Gly Met
65 70 75 80

Met Asp 11e Gly Val Ala Pro Ser Arg Val Gly Pro Ser Gly His Cys 85 90 95

Gly Val Leu Arg Ser His Ser Arg Pro Gly Glu Leu Ala Val Val Met 100 105 110

Asn His Lys Val Pro Arg His Arg Pro Val Ser Ser Val Gly Thr Glu 115 120 125

Leu Leu Trp Val Arg Cys Ala Pro Lys Met Val Gln Leu Pro Ile Cys 130 135 140

Cys Leu Leu Leu Thr Pro Ala Pro Gly Ile Gly Pro Arg Ala His Gly 145 150 155 160

His Leu His Thr Asn Leu Glu Thr Arg Gly Leu Pro Arg Gly Thr Arg

165 170 175 Glu Ser Gln Gln Ala Glu Gly Glu Gly Glu Ala Ile Gln Glu Gly Arg 185 190 180 Gly Ala Cys Lys Arg Ala Gln Arg Lys Glu Gly Glu Gly Pro Arg Gly 200 205 195 Pro Cys Val Val Arg Ala Gly Gly Val Gly Trp Gly Thr Arg Gln Val 215 220 Ala Gly Glu Pro Pro Leu Val Asp Cys Ser Thr Ala Gly Thr 225 230 235

<210> 3963

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3963

Met Arg Met Ala Pro Thr Glu Ser Thr Glu Gly Arg Arg Leu Trp Pro

1 5 10 15

Gly Pro Arg Glu Gly Gly Ser Gly Lys Glu Thr Thr Ser Glu Lys Leu 20 25 30

Ser Asn Leu Pro Arg Pro His Ser Tyr Ser Pro Lys Arg Ala Asp Ala 35 40 45

Glu Ser Phe Arg Gly Val Pro Ala Ala Phe Lys Lys Cys Arg Glu Val 50 55 60

Phe Arg Ala Cys Trp Gly Ser Arg Glu Leu Leu Phe Leu Phe Lys Ala 65 70 75 80

Ile Ser Glu Ala Gly Pro Ala Gln Asn Ser Cys Gly Ile Thr Leu Glu 85 90 95

Lys Ala Gly Gly Leu Glu Asp Thr Gly Ser His Trp Leu Ser Trp Ala 100 105 110

Arg Cys Lys Val Leu Tyr Ile Asn Gly Phe Thr Asp Pro Trp Lys Asp 115 120 125

Ala Gl<br/>n Ala Trp Ile Leu Ile Val Ser Cys Lys Lys Gly Lys Gly Th<br/>r 130 135 140

Pro Glu Arg Glu Gly Arg Asn

145 150

<210> 3964

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3964

Met Pro Trp Gly Gly Val Gly Ala Gln Pro Pro Leu Phe Tyr Leu Leu

1 5 10 15

Gly Lys Gly Leu Gln Trp Gly Leu Glu Tyr Arg Gly Phe His Gly Ser 20 25 30

Pro Gly Asp Pro Glu His Phe Tyr Ser Phe Tyr Gln Asp Lys Glu Gly
35 40 45

Leu Cys 11e Arg Leu Ser Thr Leu Asn Trp Phe Leu Trp Cys Phe 11e 50 55 60

Asp Glu Ile Arg Met His Arg Arg Pro Gln Ala Arg Tyr Leu Leu Ser 65 70 75 80

Pro Gln Cys Ser Ala Pro Pro Ala Gln Gly Ser Gly Phe Pro Arg Arg 85 90 95

Thr Gln Leu Thr Pro Thr Pro Gln Glu Ala Gln Ala Gly Leu Cys Arg 100 105 110

Ala His Lys Pro Gly Pro Val

115

<210> 3965

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3965

Met Arg Phe Pro Ser Pro Gly Pro Val Lys Asn Val Asp Gly Asp Trp

1 5 10 15

Thr Thr Val Lys Met Gln Val Tyr Gln Asp Ala Pro Ser Thr Thr Leu

			20					25					30		
Cys	Ala	Gly	Pro	Gly	Pro	Thr	Tyr	Leu	Gln	Pro	Leu	Ala	Val	Leu	Arg
		35					40					45			
Gly	Arg	Cys	His	Pro	Ser	Cys	Leu	Gln	Arg	Ser	Arg	His	Ser	G]n	Leu
	50					55					60				
Arg	Arg	Thr	Val	Ala	Glu	Gln	Пе	Leu	His	Leu	Phe	Thr	Gly	Val	Leu
65					70					75					80
His	Arg	Asn	Ala	Ile	Phe	Leu	Leu	Val	Ser	Val	Ala	Ser	His	Ser	Glu
				85					90					95	
Val	Arg	Arg	Gly	Asp											
			100												
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1				5					10					15	
Ser	G]n	Ser	Gly	Ser	Ser	Ala	Lys	Glu	Lys	Asp	Arg	Gly	Ala	Asn	Leu
			20					25					30		
Cys	Val	Met	Asp	His	Phe	Met	Lys	Пе	Phe	Leu	Tyr	Cys	Arg	Arg	Ala
		35					40					45			
Met	Val	Leu	Ala	His	Arg	Gly	Gly	Tyr	Trp	Thr	Leu	Leu	Gln	Asn	Cys
	50					55					60				
Cys	Arg	Ala	Leu	Trp	Asn	Phe	Thr	Gln	Glu	Leu	Gln	lle	Leu	Leu	Lys
65					70					75					80
Gln	Ala	Va]	Asp	Leu	Asp	Lys	Thr	Phe	Pro	He	Ser	Gln	Asp	Gly	Phe
				85					90					95	
Phe	Cys	Thr	Ser	Val	Leu	Pro	Phe	Tyr	Leu	Gly	Ala	Glu	Leu	Leu	11e
			100					105					110		
Asp	Met	Leu	He	Gln	Leu	Gln	Asn	Thr	Ser	Ser	He	Lys	Pro	He	Glu
		115					120					125			
Asp	Lys	Gly	Glu	Phe	Ser	Val	Pro	Ser	Cvs	Tvr	Glv	Asn	He	Lvs	Asn

	130					135					140				
Asp	Asn	Gly	G1y	Ser	Ser	Leu	Thr	Phe	Glu	His	Pro	Leu	Asp	Asp	Val
145					150					155					160
Asn	Val	Val	Asp	Leu	Lys	Trp	He	His	Asp	Phe	Val	Leu	Lys	Ser	Leu
				165					170					175	
Glu	Val	Leu	Tyr	Gln	Val	Glu	Lys	Trp	Glu	Thr	Leu	Val	Ser	Leu	Ala
			180					185					190		
He	Gln	Phe	Asn	Thr	Val	Ser	His	Glu	Arg	Tyr	Thr	Glu	Gln	Val	Thr
		195					200					205			
Pro	Leu	Leu	Val	Tyr	Ala	Gln	Arg	Gln	Leu	Leu	Leu	Arg	Ile	Gln	Lys
	210					215					220				
Phe	Lys	Gly	Pro	Asp	He	Thr	Gln	Gln	Pro	Cys	Ala	Arg	Tyr	Glu	Ala
225					230					235					240
Glu	Tyr	Gly	Glu		He	Thr	Cys	Arg		Phe	He	Gly	Lys		Leu
				245					250					255	
Lys	He	Asn		Ser	Thr	He	Glu		Thr	Ser	Asn	Cys		Asp	Leu
			260			_		265					270		
Leu	Lys		Leu	He	Ser	Ser		Tyr	Ser	Arg	Ala		Ala	Leu	Val
0	., .	275			., 1	mı.	280	m)	,		0	285		0.1	m)
Cys		Pro	Val	Asp	Val	Thr	Asp	Ihr	Leu	Arg		Phe	Arg	Glu	lhr
1	290	1	C	1	Т	295	Λ	Α	C	11.	300	п: -	C	A	1
	61u	Lys	Ser	Lys		His	Asn	Arg	Ser		Arg	HIS	Ser	Arg	
305	Lau	Sor	Lou	Dho	310	Ala	CIn	The	Cln	315	Ve.1	Lou	Cln	Alo	320
Leu	Leu	361	Leu	325	Leu	нта	GIII	1111	330	Asp	val	Leu	GIII	335	sei
Asn	Gln	Arg	Ser		lve	Val	Gln	Ala		Hic	Ser	Leu	Glv		Leu
ASH	0111	ms	340	Leu	1.73	, a1	0.111	345	Lcu	1113	561	Leu	350	001	Leu
Leu	lle	Phe		Glu	Lvs	Lys	Arg		Ala	Phe	Lys	Cvs		Cvs	Gln
		355			_,_	_,_	360					365	1		
Ala	Leu		Asp	lle	Phe	Arg		Pro	Asp	Val	Leu		Thr	Trp	Lys
	370	•	•			375	-		•		380			•	•
Glu	Phe	Gly	Pro	Ser	Leu	Thr	Asn	Val	Thr	Asn	Ser	His	Ser	Pro	Pro
385					390					395					400
Gly	Phe	Lys	Лsp	Tyr	Ser	Glu	Glu	Phe	Leu	Ser	Arg	Val	G1 y	lle	Trp
				405					410					415	
G1 v	Cvs	Leu	GIn	Glv	Ala	Val	He	Ser	Ala	Lys	He	Ala	Gln	Phe	He

			420					425				•	430		
Lys	Ser	Leu	Asn	Val	${\sf Glu}$	Lys	Lys	Thr	Asp	Cys	Cys	lle	Leu	Ser	Ala
		435					440					445			
Leu	Leu	Phe	Gln	Gly	Leu	Leu	Arg	Thr	Thr	Leu	Pro	His	Pro	Lys	Ala
	450					455					460				
Glu	Arg	Cys	Tyr	Ala	Gln	Tyr	Glu	He	Thr	Gln	Leu	Leu	Pro	Gly	He
465					470					475					480
Glu	Leu	Phe	Ser	Asp	Arg	Tyr	Arg	Ala	Asp	He	Cys	Ser	Val	lle	Ala
				485					490					495	
Ser	Leu	Tyr	Tyr	He	Ile	Arg	Glu	Leu	His	Phe	Val	Arg	Gln	Asn	Leu
			500					505					510		
He	Val	Leu	Pro	Leu	Leu	Ala	Leu	Tyr	Gln	Tyr	Phe	Val	Ser	G1 y	11e
		515					520					525			
Cys	Gln	Asp	He	Thr	Arg	Asn	Leu	Glu	Ala	Arg	He	Leu	Lys	Пе	Glu
	530					535					540				
Val	Leu	Ile	Asp	Leu	Arg	Phe	Phe	Ser	Glu	Ala	Phe	Tyr	Glu	11e	Ser
545					550					555					560
Gln	Ile	Phe	Tyr	Gly	Lys	Asn	Met	Pro	Cys	Pro	He	Pro	Ala	Gly	Tyr
				565					570					575	
Lys	Ala	Thr	Gly	Lys	Met	Lys	lle	Phe	Gln	Ser	Phe	Asp	Ser	Gly	Lys
			580					585					590		
Pro	Leu	Thr	Ser	Lys	Glu	Asn	He	Gln	Ala	Пe	Λsp	Glu	Leu	Arg	Asn
		595					600					605			
Lys	Gly	Leu	Pro	Ala	Val	Leu	Val	Thr	11 <u>,</u> e	Gly	G1n	Pro	His	Leu	Leu
	610					615					620				
Asn	Lys	Phe	Asn	Phe	Val	Lys	Ala	Tyr	Phe	Phe	Leu	Ser	Val	Ala	Ala
625					630					635					640
Thr	He	Asn	Cys	Val	Pro	Glu	Asn	Lys	Phe	Lys	Thr	Val	He	Thr	Asn
				645					650					655	
Lys	Ser	Lys	Pro	Asn	Leu	Pro	Asn		Lys	Glu	Пе	Tyr		Lys	Asp
			660					665					670		
Asp	Gly		Ser	Phe	Tyr	Asn		Thr	Lys	Leu	Lys		Glu	He	Thr
	_	675					680					685			
Leu		Met	Leu	Lys	Ser	Met	Leu	Leu	Met	Glu		Glu	Asp	Arg	Leu
	690	_		_		695					700	_		_	
Asn	Phe	Len	Len	Ser	Glu	Val	Glu	GIn	l vc	Thr	Len	Ser	Gln	Cve	Ser

705					710					715					720
Ala	Gly	Glu	Leu	Glu 725	lle	Val	Val	Glu	Ala 730	Arg	Leu	Gln	Leu	Ala 735	Ala
Val	Ala	Leu	Gln 740	Arg	His	Arg	Ala	Ala 745	Tyr	Ser	Ala	Ala	11e 750	Val	Phe
Ser	Thr	Leu 755	Thr	Leu	Leu	G1n	Asp 760	Ser	Lys	Leu	Phe	Glu 765	Lys	Lys	Val
Val	Gln 770	Asp	Asp	Thr	Glu	Asn 775	Pro	Val	Ser	Pro	Gly 780	Thr	Ser	Val	Thr
Glu 785	Asn	Lys	Asp	Asp	Asn 790	Glu	Phe	Leu	Asp	Pro 795	Ile	Ser	Leu	Asn	Ala 800
Arg	Glu	Tyr	Phe	Asn 805	Ile	His	Leu	Trp	Leu 810	Arg	Cys	Arg	Leu	Ala 815	Leu
Val	Thr	Ala	Phe 820	Val	Ala	Gln	lle	His 825	Gly	lle	Gly	He	Val 830	Lys	G]u
Asp	Asp	Met 835	Thr	Asp	Cys	Leu	Ser 840	Leu	Ile	Asn	Glu	Val 845	Cys	Met	Glu
Ala	Lys 850	Ser	Ala	Gly	Asp	Thr 855	Glu	Leu	Gln	Ala	Glu 860	Phe	Leu	Thr	Gln
Ala 865	Val	Ile	Leu	Gly	Leu 870	G1n	Glu	Lys	His	Leu 875	Lys	Ala	Asp	He	Met 880
Thr	Asn	Leu	Gln	Asp 885	Tle	lle	His	Leu	Leu 890	Glu	Gly	Asn	Glu	Phe 895	He
Ser	Pro	Gln	Ser 900	Arg	Leu	Thr	Leu	Ala 905	Arg	Ser	Leu	Val	Leu 910	Leu	Asp
Asp	Leu	Thr 915		Ala	Glu	Lys		Lys		Ser	Pro	Ser 925	Ser	Lys	Thr
Gly	Lys 930	Leu	Asn	Leu	Leu	Thr 935	Arg	Ala	His	Ser	11e 940	Leu	Thr	Glu	Gln
Met 945	Leu	Ala	Phe	Gly	Glu 950	Thr	Ile	Glu	Phe	Arg 955	Ser	Ser	Asn	Thr	Lys 960
Tyr	Ala	Asn	Pro	Leu 965	Gln	Pro	Leu	Lys	Asn 970	11e	Tyr	Leu	Pro	His 975	Val
Met	Leu	Leu	Ala 980	Lys	He	Lys	Met	Arg 985	lle	Gly	His	Thr	Val 990	Ala	Lys
Gln	Val	Tyr	Tyr	Lys	Asn	Lys	Arg	Lys	Asp	Pro	Ser	Lys	Trp	Leu	Pro

	995				]	1000				-	1005			
Ala.Leu	His	Leu	Phe	Asp	Val	Ala	Leu	Lys	Leu	Cys	Arg	Thr	Thr	Ala
1010				]	1015					1020				
Val Glu	Glu	His	Glu	Val	Glu	Ala	Glu	He	Leu	Phe	Gln	Lys	Gly	Lys
1025				1030					1035				1	040
lle Glu	Arg	Gln	lle	Leu	Met	Glu	Glu	Lys	Ser	Pro	Ser	Phe	Gln	Leu
			1045				]	1050				1	1055	
Glu Ser	Leu	Tyr	Glu	Ala	lle	Gln	Leu	Ser	Leu	Lys	Asn	Asp	Gln	Asn
		1060				]	1065					1070		
Ser Gly	Leu	lle	Arg	Asp	Ser	Tyr	Leu	Glu	Met	Ala	Leu	Leu	Tyr	Phe
-	1075					080					1085			
His Leu	Lys	Lys	Pro	Lys	lle	Lys	He	Ser	Gly	Ser	Pro	Leu	Thr	Leu
1090					1095					1100				
Lys Pro	Pro	Leu	Arg	Arg	Ser	Ser	Ser	Val	Lys	Glu	Thr	Ser	Ala	Asn
1105			-	1110					1115				j	120
Lys Phe	Glu	Met	Tyr	Ser	Ser	Leu	Ala	Trp	lle	Ala	lle	Arg	Ala	Ala
			1125					130					1135	
Ala Gln	Val	Ser	Glu	Ala	Val	Leu	Ala	Ile	Asn	Leu	Leu	Ile	Gly	Lys
		1140					1145					1150		
Lys Asn	Thr	Arg	Met	His	Lys	Val	Asn	Gln	Val	Ala	Leu	Pro	Asn	Ile
	1155					1160					1165			
Pro Glu	Phe	Ala	Ala	Leu	Asp	Leu	Leu	Ser	Ser	Tyr	Thr	Asp	Tyr	Leu
1170					1175					1180				
Leu Gly	Met	Phe	Gly	Cys	Leu	His	He	Met	Gln	Lys	Asn			
1185				1190					1195					
<210> 39	967													
<211> 5	10													
<212> PI	RT													
<213> He	omo	sapi	ens											
<400> 39	967													
Met Val	Gly	Met	Phe	Cys	Phe	Leu	Пe	Phe	Leu	Gln	Ser	Leu	Leu	Gly

Phe	Gly	Thr	Lys	Ala	Val	Leu	Ala	Ser	Gln	Arg	Val	Gly	Lys	Cys	Cys
			20					25					30		
Ser	Phe	Leu	Leu	Ala	Arg	Asn	Thr	Met	Ala	Gly	Thr	Arg	Arg	Val	Glu
		35					40					45			
Gly	Gln	Val	Gly	Gly	Arg	Pro	G1 y	Gly	Pro	Gly	Cys	Ser	Leu	Met	Pro
	50					55					60				
Pro	Pro	Pro	Gln	Glu	Cys	Ala	Gly	Glu	Pro	Leu	Phe	Met	Leu	Tyr	Cys
65					70					75					80
Ala	He	Lys	Gln	Gln	Met	Glu	Lys	Gly	Pro	Ile	Asp	Ala	Ile	Thr	Gly
				85					90					95	
Glu	Ala	Arg	Tyr	Ser	Leu	Ser	Glu	Asp	Lys	Leu	Ile	Arg	Gln	Gln	He
			100					105					110		
Asp	Tyr		Thr	Leu	Thr	Leu		Cys	Val	Asn	Pro		Asn	Glu	Asn
	_	115					120	_				125			
Ala		Glu	Val	Pro	Val		Gly	Leu	Asp	Cys		Thr	Val	Thr	GIn
	130	0.1		,	,	135	. 1		T		140	17 1	D	T.	C
	Lys	Glu	Lys	Leu		Asp	Ala	Ala	lyr		GIY	Val	Pro	iyr	
145	۸	D	1	۸1	150	Λ	M-+	A a.m.	1	155	Tana	A 22 ==	C1s	C1	160
GIN	Arg	Pro	Lys	Ala 165	АТа	ASP	wet	ASP	170	Glu	11'p	Arg	GIII	175	Arg
Mat	Δla	Ara	Πla	Ile	Lou	Gln	Aen	Glu		Val	Thr	Thr	lve		Asn
Met	Mia	MI g	180	110	Leu	OIII	пэр	185	изр	741	1111	1111	190	110	пор
Asn	Asn	Trn		Arg	Leu	Asn	Thr		Ala	His	Tvr	Gln		Thr	Asp
	пор	195	D, C	6	1300	71.011	200	Боа			.,.	205			
Glv	Ser		Val	Ala	Leu	Val		Lys	Gln	Thr	Ser		Tyr	Asn	He
Ĭ	210					215					220				
Ser	Asn	Ser	Ser	Thr	Phe	Thr	Lys	Ser	Leu	Ser	Arg	Tyr	Glu	Ser	Met
225					230					235					240
Leu	Arg	Thr	Ala	Ser	Ser	Pro	Asp	Ser	Leu	Arg	Ser	Arg	Thr	Pro	Met
				245					250					255	
He	Thr	Pro	Asp	Leu	Glu	Ser	Gly	Thr	Lys	Leu	Trp	His	Leu	Val	Lys
			260					265					270		
Asn	His	Asp	His	Leu	Asp	Gln	Arg	Glu	Gly	Asp	Arg	Gly	Ser	Lys	Met
		275					280					285			
Val	Ser	Glu	lle	Tyr	Leu	Thr	Arg	Leu	Leu	Ala	Thr	Lys	Gly	Thr	Leu
	290					295					300				

Gln Lys Phe Val Asp Asp Leu Phe Glu Thr Ile Phe Ser Thr Ala His Arg Gly Ser Ala Leu Pro Leu Ala Ile Lys Tyr Met Phe Asp Phe Leu Asp Glu Gln Ala Asp Lys His Gln 11e His Asp Ala Asp Val Arg His Thr Trp Lys Ser Asn Cys Leu Pro Leu Arg Phe Trp Val Asn Val Ile Lys Asn Pro Gln Phe Val Phe Asp Ile His Lys Asn Ser Thr Thr Asp Ala Cys Leu Ser Val Val Ala Gln Thr Phe Met Asp Ser Cys Ser Thr Ser Glu His Lys Leu Gly Lys Asp Ser Pro Ser Asn Lys Leu Leu Tyr Ala Lys Asp Ile Pro Asn Tyr Lys Ser Trp Val Glu Arg Tyr Tyr Ala Asp Ile Ala Lys Met Pro Ala Ile Ser Asp Gln Asp Met Ser Ala Tyr Leu Ala Glu Gln Ser Arg Leu His Leu Ser Gln Phe Asn Ser Met Ser Ala Leu His Glu Ile Tyr Ser Tyr Ile Thr Lys Tyr Lys Asp Glu Ile Leu Ala Ala Leu Glu Lys Asp Glu Gln Ala Arg Arg Gln Arg Leu Arg Ser Lys Leu Glu Gln Val Val Asp Thr Met Ala Leu Ser Ser 

<210> 3968

<211> 1078

<212> PRT

<213> Homo sapiens

<400> 3968

Met Ser Ser Ser Asp Gly Lys Val Leu Pro Leu Asn Val Gln Val Val

1 5 10 15

Thr	Gln	His	Met	Gln	Ser	Val	Lys	Gln	Ala	Pro	Lys	Thr	Pro	Gln	Asn
			20					25					30		
Val	Pro	Ala	Ser	Pro	Gly	Gly	Asp	Arg	Ser	Ala	Arg	His	Arg	Tyr	Pro
		35					40					45			
G1n	He	Leu	Pro	Lys	Pro	Ala	Asn	Thr	Ser	Ala	Leu	Thr	lle	Arg	Ser
	50					55					60				
Pro	Thr	Thr	Val	Leu	Phe	Thr	Ser	Ser	Pro	He	Lys	Thr	Ala	Val	Val
65					70					75					80
Pro	Ala	Ser	His		Ser	Ser	Leu	Asn		Val	Lys	Met	Thr		He
				85					90					95	
Ser	Leu	Thr		Ser	Asn	Ser	Asn		Pro	Leu	Lys	His		Ala	Ser
			100	<i>-</i>			<b></b>	105					110		0.1
Val	Ser		Ala	Thr	GTy	Thr		Glu	Glu	Ser	Arg		Val	Pro	GIn
7.3	,	115	C1	C .	V 1	V . 1	120	,	C1.	c .	n	125	C	<b>A</b>	C
11e		Asn	Gly	Ser	vai	Val	Ser	Leu	GIn	Ser		GIY	Ser	Arg	Ser
Con	130	110	C1 <sub>11</sub>	Clu	The	135	<b>11</b> 0	Vol	C1	Vo.1	140	Vol	Clu	Dro	C1
3er 145	sei	мта	GIY	СТУ	150	Ser	лта	vai	Gru	155	Lys	vai	Giu	110	160
	Ser	Ser	Asn	Glu		Pro	Val	Gln	Cvs		Glu	Asn	Ser	Asn	
	501	561	пор	165	1115	110	, ,	0111	170	0111	O1G	71011	001	175	oru
Ala	Lvs	Ala	Pro		Thr	Pro	Ser	Ala		Leu	Gly	Gln	Lys		Asn
	-		180					185			·		190		
Thr	Asp	Gly	Ala	Leu	Gln	Lys	Pro	Ser	Asn	Glu	Gly	Val	Ile	Glu	Ile
		195					200					205			
Lys	Ala	Thr	Lys	Val	Cys	Asp	Gln	Arg	Thr	Lys	Cys	Lys	Ser	Arg	Cys
	210					215					220				
Asn	Lys	Met	Leu	Pro	Gly	Thr	Ser	Thr	Gly.	Asn	Asn	Gln	Ser	Thr	Ile
225					230					235					240
Thr	Leu	Ser	Va]	Ala	Ser	Gln	Asn	Leu	Thr	Phe	Thr	Ser	Ser	Ser	Ser
				245					250					255	
Pro	Pro	Asn	Gly	Asp	Ser	lle	Asn	Lys	Asp	Pro	Lys	Leu	Cys	Thr	Lys
			260					265					270		
Ser	Pro	Arg	Lys	Arg	Leu	Ser	Ser	Thr	Leu	Gln	Glu	Thr	Gln	Va]	Pro
		275					280					285			
Pro		Lys	Lys	Pro	He	Val	Glu	Gln	Leu	Ser		Ala	Thr	lle	Glu
	290					295					300				

Gly	Gln	Lys	Gln	G1 y	Ser	Val	Lys	Lys	Asp	Gln	Lys	Val	Pro	His	Ser
305					310					315					320
Gly	Lys	Thr	Glu	Gly	Ser	Thr	Ala	Gly	Ala	Gln	lle	Pro	Ser	Lys	Val
				325					330					335	
Ser	Val	Asn	Val	Ser	Ser	His	He	Gly	Ala	Asn	Gln	Pro	Leu	Asn	Ser
			340					345					350		
Ser	Ala	Leu	Val	He	Ser	Asp	Ser	Ala	Leu	Glu	Gln	G1n	Thr	Thr	Pro
		355					360					365			
Ser	Ser	Ser	Pro	Asp	He	Lys	Val	Lys	Leu	Glu	Gly	Ser	Val	Phe	Leu
	370					375					380				
Leu	Asp	Ser	Asp	Ser	Lys	Ser	Val	Gly	Ser		Asn	Pro	Asn	Gly	Trp
385					390					395					400
Gln	Gln	He	Thr		Asp	Ser	Glu	Phe		Ser	Ala	Ser	Cys		Gln
				405					410					415	
Gln	Gln	Asp		Ser	Val	Met	Thr		Pro	Glu	His	Ser	_	lle	Asn
		0.1	420	0		<b>m</b>	0.1	425	0.1	0.1		Б	430		m
Asp	Leu		Lys	Ser	Val	Trp		Leu	Glu	Gly	Met		GIn	Asp	Thr
m.	0	435	0.1	-		c	440	7.1	0.1	0.1	C	445			61
lyr		GIn	Gln	Leu	His		GIn	He	GIn	Glu		Ser	Leu	Asn	GIn
11.	450	A 1 -	11: -	C	C	455	C1	1	Dana	1	460	C	C1	Lau	1
	GIU	АТа	mis	ser	Ser 470	ASP	GIN	Leu	Pro	475	GIN	ser	GIU	Leu	480
465	Dho	C1.,	Dro	Sor	Val	San	Cln	Thr	Acn		Sor	Tur	Dho	Dro	
oru	rne	Oju	OET	485	vai	261	0.111	1111	490	Olu	361	1 11	1116	495	rne
Asn	Asn	Glu	Leu		Gln	Asn	Ser	Πe		Glu	Glu	Len	Val		Met
пор	пар	Olu	500	1111	OIII	пор	561	505	• 61	Olu	Olu	Lea	510	LCu	mc c
Glu	Gln	Gln		Ser	Met	Asn	Asn		His	Ser	Tvr	Glv		Cvs	Leu
	· · · ·	515		201			520				- , -	525		-,-	
Glv	Met		Leu	Gln	Ser	Gln		Val	Thr	Pro	Glv		Pro	Met	Ser
,	530					535					540				
Ser		Thr	Ser	Ser	Thr		Phe	Tyr	His	Pro	Ile	His	Ser	Asn	Gly
545					550					555					560
Thr	Pro	lle	His	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro
				565					570					575	
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Ser	Glu	Met	lle	Ala	Gly	Ser	Gln	Ser
			580					585					590		

Leu	Ser	Arg	Glu	Ser	Pro	Cys	Ser	Arg	Leu	Ala	Gln	Thr	Thr	Pro	Val
		595					600					605			
Asp	Ser	Ala	Leu	Gly	Ser	Ser	Arg	His	Thr	Pro	He	Gly	Thr	Pro	His
	610					615					620				
Ser	Asn	Cys	Ser	Ser	Ser	Va]	Pro	Pro	Ser	Pro	Val	Glu	Cys	Arg	Asn
625					630				٠	635					640
Pro	Phe	Ala	Phe	Thr	Pro	He	Ser	Ser	Ser	Met	Ala	Tyr	His	Asp	Ala
				645					650					655	
Ser	He	Val	Ser	Ser	Ser	Pro	Val	Lys	Pro	Met	Gln	Arg	Pro	Met	Ala
			660					665					670		
Thr	His	Pro	Asp	Lys	Thr	Lys	Leu	Glu	Trp	Met	Asn	Asn	Gly	Tyr	Ser
		675					680					685			
Gly	Val	Gly	Asn	Ser	Ser	Val	Ser	Gly	His	Gly	He	Leu	Pro	Ser	Tyr
	690					695					700				
Gln	Glu	Leu	Val	Glu	Asp	Arg	Phe	Arg	Lys	Pro	His	Ala	Phe	Ala	Va]
705					710					715					720
Pro	Gly	Gln	Ser	Tyr	Gln	Ser	Gln	Ser	Arg	His	His	Asp	Thr	His	Phe
				725					730					735	
Gly	Arg	Leu	Thr	Pro	Val	Ser	Pro	Val	Gln	His	Gln	Gly	Ala	Thr	Val
			740					745					750		
Asn	Asn	Thr	Asn	Lys	Gln	Glu	Gly	Phe	Ala	Val	Pro	Ala	Pro	Leu	Asp
		755					760					765			
Asn	Lys	Gly	Thr	Asn	Ser	Ser	Ala	Ser	Ser	Asn	Phe	Arg	Cys	Arg	Ser
	770					775					780				
Val	Ser	Pro	Ala	Val	His	Arg	Gln	Arg	Asn	Leu	Ser	Gly	Ser	Thr	Leu
785					790					795					800
Tyr	Pro	Val	Ser	Asn	lle	Pro	Arg	Ser	Asn	Val	Thr	Pro	Phe	Gly	Ser
				805					810					815	
Pro	Val	Thr	Pro	Glu	Val	His	Val	Phe	Thr	Asn	Val	His	Thr	Asp	Ala
			820					825					830		
Cys	Ala	Asn	Asn	He	Ala	Gln	Arg	Ser	Gln	Ser	Va]	Pro	Leu	Thr	Val
		835					840					845			
Met	Met	Gln	Thr	Ala	Phe	Pro	Asn	Ala	Leu	Gln	Lys	Gln	Ala	Asn	Ser
	850					855					860				
Lys	Lys	He	Thr	Asn	Val	Leu	Leu	Ser	Lys	Leu	Asp	Ser	Asp	Asn	Asp
865					870					875					880

Asp Ala Val Arg Gly Leu Gly Met Asn Asn Leu Pro Ser Asn Tyr Thr Ala Arg Met Asn Leu Thr Gln Ile Leu Glu Pro Ser Thr Val Phe Pro Ser Ala Asn Pro Gln Asn Met Ile Asp Ser Ser Thr Ser Val Tyr Glu Phe Gln Thr Pro Ser Tyr Leu Thr Lys Ser Asn Ser Thr Gly Gln Ile Asn Phe Ser Pro Gly Asp Asn Gln Ala Gln Ser Glu Ile Gly Glu Gln Gln Leu Asp Phe Asn Ser Thr Val Lys Asp Leu Leu Ser Gly Asp Ser Leu Gln Thr Asn Gln Gln Leu Val Gly Gln Gly Ala Ser Asp Leu Thr `990 Asn Thr Ala Ser Asp Phe Ser Ser Asp Ile Arg Leu Ser Ser Glu Leu Ser Gly Ser Ile Asn Asp Leu Asn Thr Leu Asp Pro Asn Leu Leu Phe Asp Pro Gly Arg Gln Gln Gly Gln Asp Asp Glu Ala Thr Leu Glu Glu Leu Lys Asn Asp Pro Leu Phe Gln Gln Ile Cys Ser Glu Ser Met Asn Ser Met Thr Ser Ser Gly Phe Glu Trp Ile Glu Ser Lys Asp His Pro Thr Val Glu Met Leu Gly 

<210> 3969

<211> 988

<212> PRT

<213> Homo sapiens

<400> 3969

Met Ser Ala Gly Asp Ala Lys Asn Leu Leu Asp Thr Lys Leu Pro Thr

l				5					10					15	
Ser	Glu	Leu	Lys	lle	Tyr	Ala	Lys	Asp	Ile	Пe	He	Asn	Ile	Leu	Glu
			20					25					30		
Thr	He	Val	Lys	Glu	Phe	Gly	Lys	Val	Lys	Gln	Thr	Lys	Ala	Leu	Pro
		35					40					45			
Ser	Asp	Gln	11e	He	Ala	Ala	Gly	Lys	Ile	Val	Asn	Thr	Val	Leu	Gln
	50					55					60				
Glu	Leu	Tyr	Val	Thr	Asn	Asn	Cys	Asn	Leu	Ala	Tyr	Pro	Met	Lys	Ser
65					70					75					80
Ser	His	Leu	Arg	Leu	Ser	Gln	Gly	Asn	Ile	Gly	Thr	Gly	Ser	Leu	Pro
				85					90					95	
Lys	Gln	Gln	Ala	Cys	Phe	Tyr	Leu	Glu	Asn	Val	Ser	Ser	Gln	Leu	Glu
			100					105					110		
His	He	Phe	Pro	Arg	Glu	Gly	He	Phe	Lys	Lys	Leu	Phe	Asp	Lys	Trp
		115					120					125			
Gln	Thr	Glu	Ser	Asn	Asp	Lys	Glu	Asn	Glu	Lys	Cys	Lys	Leu	Leu	Met
	130					135					140				
He	Ala	Glu	Asn	Val	Leu	Thr	Glu	He	Ser	He	Lys	Ala	Lys	Glu	Leu
145					150					155					160
Glu	Tyr	Ser	Leu	Ser	Leu	Leu	Asn	Leu	Pro	Pro	Leu	Glu	Asn	Cys	Glu
				165					170					175	
Ser	Arg	Phe	Tyr	Asn	His	Phe	Lys	Gly	Ala	Ser	Thr	Arg	Ala	Glu	Asp
			180					185					190		
Thr	Lys		Gln	He	Asn	Met		Gly	Arg	Glu	He		Glu	Met	Leu
		195					200			0.1		205	***	Б	
Leu		Lys	Leu	Gin	Leu		Phe	Leu	Ser	GIn		Pro	Thr	Pro	Asp
6	210	61	T)			215	6		0.1		220	are)		,	0
	Glu	Glu	lhr	Leu		Asn	Ser	Lys	Glu		He	Ihr	Ala	Lys	
225	т	C1	DI	p	230	1	H.: .	C	1	235	C	1	D	11.	240 T
Lys	LÀL	GIY	rne		ASII	Lys	HIS	ser		ser	ser	Leu	Pro	He	туг
Aan	The	Luc	Than	245	Aon	Cla	II.	Con	250	C1	Can	Con	Aan	255 Cln	116
ASII	HIL	LyS	260	LyS	кѕр	OIN	116	5er 265	val	оту	ser	ser	270	Gln	116
Val	Cla	Clu		V-1	61	Thr	Vol		Acr	Mot	Lou	61		Phe	Val
101	0.111	275	110	, 41	oru	1111	280	Leu	non	pie t	Leu	285	OCI	1116	101

Asp	Leu 290	G1n	Phe	Lys	His	11e 295	Ser	Lys	Tyr	Glu	Phe 300	Ser	G1u	He	Val
Lys	Met	Pro	He	Glu	Asn	Leu	Ser	Ser	lle	Gln	Gln	Lys	Leu	Leu	Asn
305					310					315					320
Lys	Lys	Arg	Leu	Pro	Lys	Leu	Gln	Pro	Leu	Lys	Met	Phe	Ser	Asp	Lys
				325					330					335	
Ser	Glu	Ser	Asn	Thr	He	Asn	Phe	Lys	Glu	Asn	Пe	Gln	Asn	Ile	Leu
			340					345					350		
Leu	Arg	Val	His	Ser	Phe	His	Ser	Gln	Leu	Leu	Thr	Tyr	Ala	Val	Asn
		355					360					365			
He	He	Ser	Asp	Met	Leu	Ala	Val	Ile	Lys	Asn	Lys	Leu	Asp	Asn	Glu
	370					375					380				
He	Ser	Gln	Met	Glu	Pro	Ser	Ser	He	Ser	He	Leu	Lys	Glu	Asn	He
385					390					395					400
Val	Ala	Ser	Glu	lle	lle	Gly	Thr	Leu	Met	Asp	Gln	Cys	Thr	Tyr	Phe
				405					410					415	
Asn	Glu	Ser	Leu	Ile	Gln	Asn	Leu	Ser	Arg	Glu	Ser	Leu	Phe	Gln	Gly
			420					425					430		
Ala	Glu	Asn	Ala	Tyr	Thr	Val	Asn	Gln	Val	Glu	Leu	Ala	Thr	Asn	Met
		435					440					445			
Lys	Met	Phe	Thr	Ser	Lys	Leu	Lys	Glu	Gly	Ser	Leu	G1y	He	Asn	Pro
	450					455					460				
Ser	Gln	Val	Ser	Lys	Thr	Gly	Phe	Val	Phe	Cys	Ser	Asp	Glu	Asp	Met
465					470					475					480
Lys	Glu	Lys	Tyr	Arg	Val	Ser	Ser	Asp	Leu	Pro	Thr	Ser	Val	Arg	Ser
				485					490					495	
Ser	Va]	Glu	Asp	Thr	Val	Lys	Asn	Ser	Glu	Pro	Thr	Lys	Arg	Pro	Asp
			500					505					510		
Ser	Glu	Thr	Met	Pro	Ser	Cys		Thr	Arg	Asn	Lys	Val	Gln	Asp	His
		515					520					525			
Arg	Pro	Arg	G]u	Ser	Asn	Phe	G1 y	Ser	Phe	Asp	G]n	Thr	Met	Lys	Gly
	530					535					540				
	Ser	Tyr	Leu	Pro		Gly	Ser	Phe	Leu		Lys	Leu	Leu	Arg	
545			_		550					555					560
Ala	Ser	Asp	Ser		Glu	Ala	Ala	Leu		Gln	Val	Leu	Ser		He
				565					570					575	

Glu	Met	Gly	Lys 580	Gly	Glu	Asn	Leu	Arg 585	Val	Phe	His	Tyr	Glu 590	Asn	Leu
Lys	Pro	Val 595	Val	Glu	Pro	Asn	Gln 600	lle	Gln	Thr	Thr	11e 605	Ser	Pro	Leu
Lys	He		Leu	Ala	Ala	Glu		He	Val	Asn	Thr		Leu	Ser	Ser
	610					615					620				
Cys	Gly	Phe	Pro	Ser	Gln	Pro	His	Thr	Asn	Glu	Asn	Arg	Glu	Пe	Met
625					630					635					640
Lys	Pro	Phe	Phe	Ile	Ser	Lys	Gln	Ser	Ser	Leu	Ser	Glu	Val	Ser	Gly
				645					650					655	
Gly	Gln	Lys	Asp	Asn	Glu	Lys	Ser	Leu	Leu	Arg	Met	Gln	Asp	Lys	Lys
			660					665					670		
Пe	Asn	Tyr	He	Pro	Glu	G] u	Glu	Asn	Glu	Asn	Leu	Glu	Ala	Ser	Arg
		675					680					685			
Glu	Asp	Ser	Ser	Phe	Leu	Gln	Lys	Leu	Lys	Lys	Lys	Glu	Tyr	Pro	Lys
	690					695					700				
He	Glu	Thr	Val	Lys	Glu	Val	Glu	Ala	Phe	Thr	Phe	Ala	Asp	His	Glu
705					710					715					720
Met	Gly	Ser	Asn	Glu	Val	His	Leu	Ile	Ala	Arg	His	Val	Thr	Thr	Ser
				725					730					735	
Val	Val	Thr	Tyr	Leu	Lys	Asn	Phe	Glu	Thr	Thr	Val	Phe	Ser	Glu	Glu
			740					745					750		
Lys	Met	Ser	Val	Ser	Thr	Trp	Ser	Arg	Lys	Lys	Tyr		Ser	Lys	Gln
		755					760					765			
Phe		Arg	Asn	He	Tyr		Asp	Ser	Ser	lle		Gln	Cys	Cys	Glu
	770					775					780	_		_	
	Leu	Thr	G]u	Ser		Leu	Tyr	His	Leu		Ser	Ser	lle	Ser	
785					790		_			795	_				800
GIy	Thr	Lys	Lys		Arg	Glu	Lys	Glu		Ala	Trp	Glu	He		Glu
	m	131		805				· 1	810	0	0.1		DI	815	0
Ala	lhr	Phe		Lys	He	He	Ser	He	His	Ser	GIn	Val		Glu	Ser
	C	1.1	820		C1	61		825	,	C		C	830	7.7	
Arg	Ser		Ser	He	Gly	Glu		Ala	Leu	Cys	116		Glu	Пе	11e
11	1	835	1	DI.	Λ	Α	840	11.	11.	C1	A 1 .	845	11.	A 1 .	C1.
116		116	ren	rne	ASN		Lys	lle	116	GIN		ASP	116	мта	OIU
	850					855					860				

Lys Met Val Ala Ile Pro Thr Lys Tyr Thr Tyr Cys Pro Gly Ile Val Ser Gly Gly Phe Asp Asp Leu Phe Gln Asp Leu Leu Val Gly Val Ile His Val Leu Ser Lys Glu Ile Glu Val Asp Tyr His Phe Glu Ser Asn Val Arg Asp Lys Ser Phe Ser Met His Arg Asn Asn Ser Val Pro lle Cys Asn Lys Ile Asn Arg Gln Ala Ser Pro Arg Asp Trp Gln Phe Ser Thr Gln Gln Ile Gly Gln Leu Phe Gln Lys Asn Lys Leu Ser Tyr Leu Ala Cys Lys Leu Asn Ser Leu Val Gly Asn Leu Lys Thr Ser Glu Ser Lys Glu Val Val Asn Lys Val Phe Asn Ile Val Ser 

<210> 3970

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3970

Met Gln Ser Trp Gly Pro Pro Ala Pro Pro Ala Ser Ser Ser Leu Arg Ala Pro His Gln Lys Val Leu Thr Arg Lys Ser Ile Pro Phe Leu Gln His Arg Pro Leu Gly Pro Cys Ser Leu His Leu His Pro Leu Ser His His Ser Pro His Pro His Ser Ser His Arg Ser Arg Ser Ser Ser Trp Ala Ile Pro Thr Thr Pro Pro Arg Val Ser Pro Ala Pro Pro Cys Ala Gly Gln Cys Pro Pro Pro Gly Pro Asp Leu Pro Pro Ser Trp Pro Leu 

Pro Arg Pro Glu Pro Ser Val His Ala Ala Val Thr Thr Val Arg Leu

100 105 Ala <210> 3971 <211> 323 <212> PRT <213> Homo sapiens <400> 3971 Met Glu Val Leu Ser Gly Val Ala Lys Gly Tyr Asn Ile Cys Leu Phe 1 5 10 15 Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr Tyr Thr Met Leu Gly Thr 25 Pro Ala Ser Val Gly Leu Thr Pro Arg Ile Cys Glu Gly Leu Phe Val 40 Arg Glu Lys Asp Cys Ala Ser Leu Pro Ser Ser Cys Arg Ile Lys Val 50 60 55 Ser Phe Leu Glu Ile Tyr Asn Glu Arg Val Arg Asp Leu Leu Lys Gln 70 75 Ser Gly Gln Lys Lys Ser Tyr Thr Leu Arg Val Arg Glu His Pro Glu Met Gly Pro Tyr Val Gln Gly Leu Ser Gln His Val Val Thr Asn Tyr 100 105 Lys Gln Val Ile Gln Leu Leu Glu Glu Gly Ile Ala Asn Arg Ile Thr 120 125 Ala Ala Thr His Val His Glu Ala Ser Ser Arg Ser His Ala Ile Phe 130 135140 Thr Ile His Tyr Thr Gln Ala Ile Leu Glu Asn Asn Leu Pro Ser Glu 155 Met Ala Ser Lys Ile Asn Leu Val Asp Leu Ala Gly Ser Glu Arg Ala 165 170

Asp Pro Ser Tyr Cys Lys Asp Arg lle Ala Glu Gly Ala Asn lle Asn

185

190

180

Lys Ser Leu Val Thr Leu Gly Ile Val Ile Ser Thr Leu Ala Gln Asn Ser Gln Val Phe Ser Ser Cys Gln Ser Leu Asn Ser Ser Val Ser Asn Gly Gly Asp Ser Gly 11e Leu Ser Ser Pro Ser Gly Thr Ser Ser Gly Gly Ala Pro Ser Arg Arg Gln Ser Tyr Ile Pro Tyr Arg Asp Ser Val Leu Thr Trp Leu Leu Lys Asp Ser Leu Gly Gly Asn Ser Lys Thr Ile Met Val Ala Ser Glu Trp Asp Ala Arg Ala Gly Pro Val Leu Gly Leu Val Leu Tyr Leu Arg Glu Arg Ala Met Ala Pro Val Ser Gly Met Pro Glu Leu Asp Leu Cys Trp Asp Trp Tyr Ser Ile Ser Glu Lys Gly Pro Trp Pro Gln

<210> 3972

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3972

 Cys
 Val
 Cys
 Leu
 Ser
 Ser
 Asn
 Leu
 Asn
 Thr
 Leu
 Gly
 Cys
 Ser
 Val
 Arg

 Cys
 Arg
 Ser
 Glu
 Thr
 Ala
 Val
 Glu
 Thr
 Arg
 Phe
 Pro
 Ala
 Leu
 Gly
 Trp

 Gly
 Pro
 His
 Lys
 Ala
 Ser
 Ser
 Ile
 Ser
 Pro
 Trp
 Pro
 Ser
 Phe
 Leu
 Ile

 Gly
 Arg
 Thr
 Gly
 Ser
 Leu
 Glu
 Asn
 Leu
 Gly
 Gly

 130
 Leu
 Ile
 I

<210> 3973

<211> 241

<212> PRT

<213> Homo sapiens

<400> 3973

Met Tyr Ile Tyr Leu Leu Pro Val Arg Phe Glu Arg Ile Phe Phe Phe Ileu Is some series of the Interval of the Int

Asp Ser Pro Thr Ser Ala Ser His Val Ala Gly Ile Thr Gly 1le Arg 50 55 60

His His Ala Arg Leu Lys Phe Phe Cys 11e Phe Ser Arg Asp Gly Ala 65 70 75 80

Leu Pro Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu 85 90 95

Pro Ala Leu Ala Ser Gln Ser Ala Val Ile Arg Gly Met Ser His Arg 100 105 110

Thr Leu Pro Lys Gly Tyr Ile Arg Pro Tyr Lys Tyr Phe Asp Ser Leu
115 120 125

Phe Phe Phe Phe Phe Leu Glu Thr Glu Phe Cys Ser Cys Cys Pro 130 135 140

Gly Trp Ser Ala Val Gly Gln Ser Gln Leu Thr Ala Thr Ser Ala Ser 145 150 155 160

Trp Val Gln Ala Val Leu Leu Pro Gln Ser Pro Glu Trp Leu Gly Leu 165 170 Gln Ala His Ala Arg Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe 180 185 190 His Arg Val Gly Gln Ala Asp Leu Lys Leu Leu Thr Ser Ala His Leu 200 205 Ser Leu Pro Lys Cys Trp Asp Tyr Arg Arg Glu Pro Pro Arg Pro Ala 210 215 220 Lys Tyr Phe Tyr Tyr Thr Met His Ile Val Glu Tyr Met Leu Leu Val 225 230 235 240 Leu

<210> 3974

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3974

Met Ser Leu Ser Trp Gly Gly 11e Gln Thr Ala Phe Phe Gly Tyr Gly

1 5 10 15

Glu Gly Gly Glu Val Cys Val Cys Thr Cys Val Cys Val Leu Ser Phe

Glu Gly Gly Glu Val Cys Val Cys Thr Cys Val Cys Val Leu Ser Phe
20 25 30

Leu Met Pro Leu Asn Phe Phe Ser Phe Leu Phe Phe Phe Leu Arg Gln 35 40 45

Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala Asn Leu Ala 50 55 60

His Arg Lys Leu His Leu Pro Gly Ser His His Ser Pro Ala Ser Ala 65 70 75 80

Ser Arg Val Pro Gly Thr Met Gly Thr Cys Gln His Ala Gln Leu lle

Phe Cys Ile Phe Ser Gly Asp Gly Val Ser Pro Cys Trp Pro Gly Trp 100 105 110

Ser Gly Ser Pro Asp Leu Met 11e His Pro Pro Arg Pro Ser Lys Val 115 120 125 Leu Gly Leu Gln Ala 130

<210> 3975

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3975

Met Trp Ala Ser Pro Ala Pro Thr Leu Ile Asp Ser Gly Asp Ser Val 1 5 10 15

Val Ala Lys Tyr Ile Asn Arg Phe Arg Gln Ala Gln Pro Thr Ser Arg 20 25 30

Glu Glu Arg Gln Pro Ala Gly Pro Thr Pro Ala Asp Phe Trp Trp Leu 35 40 45

Gln Ser Asp Ser Pro Gly Pro Ser Ser Gln Ser Ala Ala Ala Gly Ala 50 55 60

Asn Lys Pro Glu Gly Arg Pro His Thr Ala Val Pro Thr Ala Val Asn 65 70 75 80

Val Thr Ser Ala Ser His Ala Val Ala Pro Leu Gln Glu Ile Lys Gln 85 90 95

Val Thr Ser Pro Phe Thr Pro Ser Leu Gly Cys Leu Asn 100 105

<210> 3976

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3976

Met Gln Ser Pro Cys Pro Val Ser Pro Glu Thr Gly Gly Pro Cys Phe

1 5 10 15

Pro Val Glu Leu Thr Ala Asp Gly Arg Ala Thr Val Val Trp Val Trp

20 25 30

```
Pro Gly Val Ile Gln Glu Gly His Leu Gly Ala Ser His Gly Gln Met
Phe Ser Gly Pro Pro Gly Gly Val Thr Leu Ala Ser Pro Trp Ser Arg
     50
                         55
                                             60
Gln Leu Thr Ala Pro Ala Pro Pro Pro Pro Pro Cys Leu Pro Cys
                     70
                                         75
His Pro Trp Gly Gln Val Ser Ser Met Thr Phe Pro Ala Pro Ser Leu
                 85
                                     90
Tyr Leu Val Thr Val Asn Pro Arg Arg Lys Arg Arg Tyr His Leu Leu
            100
                                105
                                                    110
Gln Lys Ala Lys Asn Gln Val Arg Phe Gln Val Val Gly His Leu Gly
                            120
                                                125
Gly Ser Pro Arg Pro Thr Leu Ala Gly Phe Leu Arg Gly Phe Gln Ser
    130
                                            140
                        135
Thr Trp Arg
145
```

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3977

Met Ala Trp Gly Ser Val Gly Val Gly Pro Leu Val Val Trp Val Cys Ala Gly Val Gly Trp Cys Gly Cys Arg Arg Leu Gly Gly Cys Val Arg Val Leu Gly Ile His Val Val Trp Gly Cys Val Asp Val Tyr Thr Gly Val Ser Ala Gly Val Asp Gly Val Cys Ala Gly Val Ala Cys Leu Val Trp Val Val Gly Val Arg Ala Gly Met Cys Val Val Cys Arg Arg Val Gly Ser Cys Gly Gly Val Gln Val Cys Val Leu Gly Ile Asp Val Ala 

Trp Val Ala Gly Cys Val Gln Val Leu Gly Val Cys Arg
100 105

<210> 3978

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3978

Met Ser Ser Phe Leu Gly Gly Gly Glu Asp Arg Val Leu Leu Cys Arg

1 5 10 15

Ala Gly Trp Ser Ala Val Val Arg Ser Arg Leu Thr Ala Leu Ser Ala 20 25 30

Ser Trp Val Arg Glu lle Leu Leu Pro Gln Pro Pro Glu Trp Leu Gly
35 40 45

Leu Gln Val Arg Ala Thr Thr Leu Ser Ser Phe Phe Leu Cys Ala Phe 50 55 60

Cys Val Val Ala Gly Phe Ser Gln Cys Cys Pro Gly Trp Cys His Thr 65 70 75 80

Pro Gly Leu Lys Gln Ser Ser Arg Leu Gly Leu Pro Lys Cys Trp Asp 85 90 95

Tyr Arg Arg Glu Pro Arg

100

<210> 3979

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3979

Met Arg Val Leu His Val Gly Ala Phe Asn Trp Glu Glu Phe Leu Leu

1 5 10 15

Ala Cys Asp Gly Phe Ser Asn Gly Ala Glu Ile Pro Lys Tyr Lys Pro

20 25 30

Ala Asn Arg Ala Leu Lys Phe His Gly Val Ser Phe Pro Ala Ala Cys 40 Ser Gly Pro Val Arg Cys Cys Gly Met Phe Thr Ile Glu Pro Gly Ser 50 55 60 Val Pro Leu Gly Arg Ala Ala Ala Leu Val Glu Arg Val Arg Ser Gly 70 75 Pro Pro Pro Arg Gly Gln Pro Gly Leu Ser Gly Gly Gln Lys Pro Leu 85 90 Met Glu Asp Phe Ser Ser Leu Val Ser Gln Ala Gly Cys Ile Phe Val 100 105 110 Arg Leu Ser 115 <210> 3980 <211> 150 <212> PRT <213> Homo sapiens <400> 3980 Met Met Cys Phe Ile Ser Val Phe Asp Val Phe Ser Phe Phe Ser Pro Gly Phe Thr Ser Phe Ala Ile Ser Leu Cys Phe Gly Phe Ala Ala Asn 25 Leu Ile Gly Leu Gly Leu Ala Ala Lys Ala Leu Asp Ser Gly Ala Phe 40 Phe Ser Phe Val Val Leu Ser Pro Ser Phe Pro Leu Pro Ser Cys Pro 55 60 His His Phe Thr Leu Leu Lys Val Ile Met Asn Thr Arg Ser Glu Ile 65 70 75 80 Pro Phe Leu Ala Pro Ser Thr Leu Gly Phe Phe Glu Met Glu Ser His Cys Val Thr Gln Ala Val Ala Arg Leu Cys Ala Leu Gln Pro Pro Ser 100 105 110 Pro Trp Leu Lys Gln Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp

120

125

115

Tyr Arg Cys Lys Pro Arg His Leu Ala Asn Phe Ser Val Phe Ser Arg 135 140 Asp Gly Val Ser Pro Cys 145 150 <210> 3981 <211> 132 <212> PRT <213> Homo sapiens <400> 3981 Met Arg Asn Met Ile Pro Gln Asp Asn Glu Asn Pro Pro Gln Gln Gly 1 5 Glu Ala Asn Gln Asn Asp Phe Ala Leu Val Ala Gln Ala Gly Val Gln 20 25 Trp Leu Asp Leu Gly Pro Gln Leu Pro Leu Leu Pro Gly Phe Lys Arg 40 45 Phe Phe Cys Leu Ser Leu Leu Ser Ser Cys Gly Tyr Ser Trp Ser Leu 50 55 60 Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala Ile Ser Ala Tyr Gly 70 75 Lys Leu Arg Leu Pro Gly Ser Cys His Ser Pro Ala Ser Ala Ser Arg 85 90 Val Ala Arg Thr Thr Gly Ala Arg His His Thr Arg Leu Ile Phe Val 100 105

Phe Leu Val Glu Thr Arg Phe His Arg Val Ser Gln Asp Gly Leu Asp 120

125

<210> 3982

Leu Leu Thr Ser 130

<211> 152

<212> PRT

<213> Homo sapiens

⟨400⟩ 3982 Met Arg Asn Gln Ala Pro Gly Arg Pro Lys Gly Ala Thr Phe Pro Pro 5 10 Arg Arg Pro Thr Gly Ser Arg Ala Pro Pro Leu Ala Pro Glu Leu Arg 25 Ala Lys Gln Arg Pro Gly Glu Arg Val Met Ala Leu Pro Val Thr Ala 40 45 Leu Leu Leu Pro Leu Ala Leu Leu Leu His Ala Ala Arg Pro Ser Gln 50 55 60 Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly Glu Thr Val 70 75 Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser Gly Cys Ser 85 90 Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr Phe Leu Leu 105 Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu Asp Thr Gln 120 Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu Thr Leu Ser 130 135 140 Asp Phe Arg Arg Glu Asn Glu Gly 145 150 <210> 3983 <211> 130 <212> PRT <213> Homo sapiens

<400> 3983
Met Gly Phe Pro Gln Arg Arg Leu Gly Lys Ser Val Gly Val Thr Ala
1 5 10 15
Gly Gly Leu Leu Leu Gly Leu Gln Arg Gln Asn His Arg Pro Leu
20 25 30
Cys Gly Phe Gln Ala Gly Leu Gly Phe Pro Gly Gly Leu Gly Phe Cys
35 40 45

Ala Leu His Asp Cys Leu Ala Gln Asp Leu Ser His Leu Gln Gln Glu Glu Ala Gly Thr Leu Gly Arg Ala Gly Cys Cys Leu Val Leu Lys Pro Leu Ala Ala Cys Pro Ser Ser Ser Arg Ser Ala Val Pro Gly Gly Ala Gly Ser Leu Arg Arg Ala Gly Pro Gly Leu Ser Tyr Pro Leu Arg Ala Trp His Cys Pro Gly Arg Gly Ala Phe Val Gln Tyr Tyr Ser Asn Asp Arg Thr <210> 3984 <211> 270 <212> PRT <213> Homo sapiens <400> 3984 Met Ser Ser Arg Lys Gln Gly Ser Gln Pro Arg Gly Gln Gln Ser Ala Glu Glu Glu Asn Phe Lys Lys Pro Thr Arg Ser Asn Met Gln Lys Asn Leu Glu Pro Ala Leu Pro Gly Arg Trp Gly Gly Arg Ser Ala Glu Asn Pro Pro Ser Gly Ser Val Arg Lys Thr Arg Lys Asn Lys Gln Lys Thr Pro Gly Asn Gly Asp Gly Gly Ser Thr Ser Glu Ala Pro Gln Pro Pro Arg Lys Lys Arg Ala Arg Ala Asp Pro Thr Val Glu Ser Glu Glu Ala Phe Lys Asn Arg Met Glu Val Lys Val Lys Ile Pro Glu Glu Leu Lys 

Pro Trp Leu Val Glu Asp Trp Asp Leu Val Thr Arg Gln Lys Gln Leu

		115					120					125			
Phe	Gln	Leu	Pro	Ala	Lys	Lys	Asn	Val	Asp	Ala	Пе	Leu	Glu	Glu	Tyr
	130					135					140				
Ala	Asn	Cys	Lys	Lys	Ser	Gln	Gly	Asn	Val	Asp	Asn	Lys	Glu	Tyr	Λla
145					150					155					160
Val	Asn	Glu	Val	Val	Ala	G1 y	11e	Lys	Glu	Tyr	Phe	Asn	Val	Met	Leu
				165					170					175	
Gly	Thr	Gln	Leu	Leu	Tyr	Lys	Phe	Glu	Arg	Pro	Gln	Tyr	Ala	Glu	He
			180					185					190		
Leu	Leu	Ala	His	Pro	Asp	Ala	Pro	Met	Ser	Gln	Val	Tyr	Gly	Ala	Pro
		195					200					205			
His	Leu	Leu	Arg	Leu	Phe	Val	Arg	Ile	Gly	Ala	Met	Leu	Ala	Tyr	Thr
	210					215					220				
Pro	Leu	Asp	Glu	Lys	Ser	Leu	Ala	Leu	Leu	Leu	Gly	Tyr	Leu	His	Asp
225					230					235					240
Phe	Leu	Lys	Tyr	Leu	Ala	Lys	Asn	Ser	Ala	Ser	Leu	Phe	Thṛ	Ala	Ser
				245					250					255	
Asp	Tyr	Lys	Val	Ala	Ser	Ala	Glu	Tyr	His	Arg	Lys	Ala	Leu		
			260					265					270		

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3985

Met Arg His Leu Val His Met Ala Ser Phe Ser Ala Gln Thr Asn Met 1  $\phantom{0}$   $\phantom{0}$ 

Gln Leu Phe Gly Gly Ala Ala Leu Ser Gly Gly Glu Val Glu Ser Gly

65					70					75					80
Trp	Arg	Ser	Leu	Pro	Gly	Thr	Arg	Ala	Ser	Gly	Ser	Pro	Glu	Asp	Leu
				85					90					95	
Met	Pro	Arg	Pro	Leu	Pro	Tyr	His	Leu	Pro	Ser	He	Leu	Gln	Ala	Gly
			100					105					110		
Asp	Gly	Pro	Pro	Gln	Met	Arg	Pro	Tyr	His	Thr	He	He	Glu	He	Ala
		115					120					125			
Glu	His	Lys	Arg	Lys	Gly	Ser	Leu	Lys	Val	Arg	Lys	Trp	Arg	Ser	He
	130					135					140				
Phe	Asn	Leu	Gly	Arg	Ser	G1 y	His	Glu	Thr	Lys	Arg	Lys	Leu	Pro	Arg
145					150					155					160
Gl y	Ala	Glu	Asp	Arg	Glu	Asp	Lys	Ser	Asn	Lys	Gly	Thr	Leu	Arg	Pro
				165					170					175	
Ala	Lys	Ser	Met	Gly	Ser	Leu	Ser	Ala	Ala	Ala	Gly	Ala	Ser	Asp	Glu
			180					185					190		
Pro	Glu	Gly	Leu	Va]	Gly	Pro	Ser	Ser	Pro	Arg	Pro	Ser	Pro	Leu	Leu
		195					200					205			
Pro	Glu	Ser	Leu	Glu	Asn	Asp	Ser	Ile	Glu	Ala	Ala	Glu	Gly	Glu	Gln
	210					215					220				
Glu	Pro	Glu	Ala	Glu	Ala	Leu	Gly	Gly	Thr	Asn	Ser	Glu	Pro	Gly	Thr
225					230					235					240
Pro	Arg	Ala	G] y	Arg	Ser	Ala	lle	Arg	Ala	G1 y	Gly	Ser	Ser	Arg	Ala
				245					250					255	
Glu	Arg	Cys	Ala	Gly	Val	His	11e	Ser	Asp	Pro	Tyr	Asn	Val	Asn	Leu
			260					265					270		
Pro	Leu	His	lle	Thr	Ser	He	Leu	Ser	Va1	Pro	Pro	Asn	lle	He	Ser
		275					280					285			
Asn		Ser	Leu	Ala	Arg		Thr	Arg	Gly	Leu		Cys	Pro	Ala	Leu
	290					295					300				
	His	Arg	Pro	Ser	Pro	Ala	Ser	Gly	Pro		Pro	Gly	Pro	Gly	
305					310					315					320
Gly	Pro	Gly	Pro		Asp	Glu	Lys	Leu		Ala	Ser	Pro	Ala		Ser
				325					330					335	
Pro	Leu	Ala		Ser	Gly	Pro	Asp		Leu	Ala	Pro	Ala		Glu	Asp
			340					345					350		
Ser	Leu	Ser	Gln	Glu	Val	Gln	Asp	Ser	Phe	Ser	Phe	Leu	Glu	Asp	Ser

		355					360					365			
Ser	Ser	Ser	Glu	Pro	Glu	Trp	Val	Gly	Ala	Glu	Asp	Gly	Glu	V.a1	Ala
	370					375					380				
Gln	Ala	Glu	Ala	Ala	Gly	Ala	Ala	Phe	Ser	Pro	Gly	Glu	Asp	Asp	Pro
385					390					395					400
G1 y	Met	Gly	Tyr	Leu	Glu	Glu	Leu	Leu	Gly	Val	Gly	Pro	Gln	Val	Glu
				405					410					415	
Glu	Phe	Ser	Val	Glu	Pro	Pro	Leu	Asp	Asp	Leu	Ser	Leu	Asp	Glu	Ala
			420					425					430		
Gln	Phe	Val	Leu	Ala	Pro	Ser	Cys	Cys	Ser	Val	Asp	Ser	Ala	Gly	Pro
		435					440					445			
Arg	Pro	Glu	Val	Glu	Glu	Glu	Asn	Gly	Glu	Glu	Val	Phe	Leu	Ser	Ala
	450					455					460				
Tyr	Asp	Asp	Leu	Ser	Pro	Leu	Leu	Gly	Leu	Leu	Leu	Gln	Pro	Gly	Trp
465					470					475					480
Gly	His	Arg	Ser	His	Ser	Ser	Glu	Gly	Gln	Cys	Leu	Arg	lle	Lys	Ala
				485					490					495	
Va]	Phe	Leu													

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3986

 Met Lys Met Lys Met Glu Glu Met Lys Met Lys Met Lys Met Lys Met Lys Met Glu Met Ser Leu Ser Gly Leu Asp Asp Asp Ser Lys Leu 1
 1
 5
 10
 15
 15

 Glu Ala lle Ala Gln Glu Ile Tyr Ala Asp Leu Val Glu Asp Ser Cys 20
 25
 30
 30

 Leu Gly Phe Cys Phe Glu Val His Arg Ala Val Lys Cys Gly Tyr Phe 35
 40
 45

 Phe Leu Asp Asp Thr Asp Pro Asp Ser Met Lys Asp Phe Glu Ile Val

50 55 60

Asp Gln Pro Gly Leu Asp Ile Phe Gly Gln Ile Phe Asn Gln Trp Lys

65					70					75					80
Ser	Lys	Glu	Cys	Val	Cys	Pro	Asn	Cys	Ser	Arg	Ser	lle	Ala	Ala	Ser
				85					90					95	
Arg	Phe	Ala	Pro	His	Leu	Glu	Lys	Cys	Leu	Gly	Met	Gly	Arg	Asn	Ser
			100					105					110		
Ser	Arg	He	Ala	Asn	Arg	Arg	He	Ala	Asn	Ser	Asn	Asn	Met	Asn	Lys
		115					120					125			
Ser	Glu	Ser	Asp	Gln	Glu	Asp	Asn	Asp	Asp	lle	Asn	Asp	Asn	Asp	Trp
	130					135					140				
Ser	Tyr	Gly	Ser	Glu	Lys	Lys	Ala	Lys	Lys	Arg	Lys	Ser	Asp	Lys	Asn
145					150					155					160
Pro	Asn	Ser	Pro	Arg	Arg	Ser	Lys	Ser	Leu	Lys	His	Lys	Asn	Gly	G] u
				165					170					175	
Leu	Ser	Asn	Ser	Asp	Pro	Phe	Lys	Tyr	Asn	Asn	Ser	Thr	Gly	He	Ser
			180					185					190		
Tyr	Glu	Thr	Leu	Gly	Pro	Glu	Glu	Leu	Arg	Ser	Leu	Leu	Thr	Thr	Gln
		195					200					205			
Cys	Gly	Val	Ile	Ser	Glu	His	Thr	Lys	Lys	Met	Cys	Thr	Arg	Ser	Leu
	210					215					220				
Arg	Cys	Pro	Gln	His	Thr	Asp	Gly	Gln	Arg	Arg	Thr	Val	Arg	He	Tyr
225					230					235					240
Phe	Leu	Gly	Pro	Ser	Ala	Val	Leu	Pro	Glu	Val	Glu	Ser	Ser	Leu	Asp
				245					250					255	
Asn	Asp	Ser	Phe	Asp	Met	Thr	Asp	Ser	Gln	Ala	Leu	11e	Ser	Arg	Leu
			260					265					270	-	
Gln	Trp	Asp	Gly	Ser	Ser	Asp	Leu	Ser	Pro	Ser	Asp	Ser	Gly	Ser	Ser
		275					280					285			
Lys	Thr	Ser	Glu	Asn	Gln	Gly	Trp	Gly	Leu	G1 y	Thr	Asn	Ser	Ser	G] u
	290					295					300				
Ser	Arg	Lys	Thr												
305															

<211> 153

<212> PRT

## <213> Homo sapiens

<400> 3987

Met Ala Lys Lys Ile Val Leu Ala Phe Ala Asp Gln Cys Asn Asn Gln

1 5 10 15

Leu Ala Asn Ala Ala Val Ser Ser Asp Ser Tyr Val Leu Cys Asn 11e 20 25 30

Leu Arg Thr Gln Phe Phe Phe Phe Leu Phe Val Cys Leu Phe Phe Glu 35 40 45

Ala Glu Ser Arg Ser Val Thr Gln Val Gly Val Gln Trp Arg His Leu
50 . 55 60

Gly Ser Leu Tyr Ala Pro Pro Pro Arg Phe Thr Pro Phe Ser Cys Leu
65 70 75 80

Ser Leu Pro Ser Ser Trp Asp Cys Arg Cys Leu Pro Pro Cys Pro Ala 85 90 95

Asp Phe Phe Cys lle Phe Ser Gly Asp Gly lle Ser Pro Cys Trp Pro
100 105 110

Gly Trp Ser Arg Ser Pro Asp Leu Met Ser His His Thr Arg Pro Gly
115 120 125

Thr Gln Phe Leu Ile Arg Leu Val Leu Phe Leu Ile Phe Ser Gln Val 130 135 140

Trp Leu 11e Leu Val Leu Phe Phe Phe 145 150

<210> 3988

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3988

Met Ser His Arg Ala Arg Leu Leu Leu Phe Phe Leu Arg Cys Ser Leu

1 5 10 15

Thr Leu Leu Pro Arg Leu Glu Cys Ser Gly Val He Ser Ala His Cys
20 25 30

Ser Arg Ser Leu Leu Gly Ser Asn Asp Ser Pro Ala Ser Ala Ser Gln

Val Ala Gly Ile Thr Gly Ala Cys His His Ala Gln Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser Asn Leu Ala Arg Pro Gly Ala Val Thr Phe Lys Ala Arg Arg Pro Glu Arg Arg Leu Val Gln Arg Ser Gln Gly Ser Glu Gly Leu Arg Pro Gly Arg Gln Glu Pro Gly Asp Met Asp lle Cys Glu Gly Glu <210> 3989 <211> 609 <212> PRT <213> Homo sapiens <400> 3989 Met Glu Ala Glu Phe Tyr Met Val Ile Leu Thr Cys Leu Ile Phe Arg Asn Ser Glu Gly Phe Gln Ile Val His Val Gln Lys Gln Gln Cys Leu Phe Lys Asn Glu Lys Val Val Val Gly Ser Cys Asn Arg Thr Ile Gln Asn Gln Gln Trp Met Trp Thr Glu Asp Glu Lys Leu Leu His Val Lys Ser Ala Leu Cys Leu Ala Ile Ser Asn Ser Ser Arg Gly Pro Ser Arg Ser Ala lle Leu Asp Arg Cys Ser Gln Ala Pro Arg Trp Thr Cys Tyr 

Asp Gln Glu Gly Phe Leu Glu Val Glu Asn Ala Ser Leu Phe Leu Gln

			100					105					110		
Lys	Gln	Gly	Ser	Arg	Val	Val	Val	Lys	Lys	Ala	Arg	Lys	Tyr	Leu	His
		115					120					125			
Ser	Trp	Met	Lys	Пe	Asp	Val	Asn	Lys	Glu	G1 y	Lys	Leu	Val	Asn	Glu
	130					135					140				
Ser	Leu	Cys	Leu	G1n	Lys	Ala	Gly	Leu	Gly	Ala	Glu	Val	Ser	Val	Arg
145					150					155					160
Ser	Thr	Arg	Asn	Thr	Ala	Pro	Pro	Gln	He	Leu	Thr	Thr	Phe	Asn	Ala
				165					170					175	
Val	Pro	Asp	Gly	Leu	Val	Phe	Leu	Ile	Arg	Asn	Thr	Thr	Glu	Ala	Phe
			180					185					190		
Пe	Arg	Asn	Ala	Ala	Glu	Asn	Tyr	Ser	Gln	Asn	Ser	Ser	Glu	Arg	Gln
		195					200					205			
His	Pro	Asn	Leu	His	Met	Thr	Gly	He	Thr	Asp	Thr	Ser	Trp	Val	Leu
	210					215					220				
Ser	Thr	Thr	Gln	Pro	Phe	Ser	Ser	Thr	Thr	Glu	Glu	Thr	Gly	Leu	Ala
225					230					235					240
Glu	Pro	Glu	Arg	Cys	Asn	Phe	Thr	Leu		Glu	Ser	Lys	Ala		Ser
				245					250					255	
His	Ser	Val		He	Gln	Trp	Arg		Leu	G1 y	Ser	Pro	Cys	Asn	Phe
			260					265					270	_	
Ser	Leu		Tyr	Ser	Ser	Asp	Thr	Leu	G1 y	Ala	Ala		Cys	Pro	Thr
		275			<b></b>		280		0			285			0.1
Phe		He	Asp	Asn	Thr		Tyr	Gly	Cys	Asn		GIn	Asp	Leu	GIn
	290	T)	T 1	T		295		7.1	* 1	C	300		61	6.1	
	Gly	Ihr	11e	lyr		Phe	Arg	11e	11e	a . =	Leu	Asp	Glu	61u	
305	W - 1	V - 1	1	C1	310	Λ	D	1	D	315	A 1	۸	Dl	C1	320 V=1
ınr	V 21 1	vai	Leu	325	HIII.	ASP	Pro	Leu	330	110	мта	Mrg	rne	335	vaj
Sor	Lvc	Glu	lve		The	Sor	Thr	Sor		Ніс	Val	Tirro	Tren		Pro
361	Lys	Olu	340	1111	1111	261	1111	345	Leu	1115	vai	пр	350	1111	110
Sor	Sor	Glv		Val	Thr	Sor	Tyr		Val	Gln	Leu	Phe		Glu	Asn
SCI	501	355	L) S	, (1)	1111	561	360	014	, (1,1	OIN	150.0	365	пор	Old	71.511
Asn	Gln		He	Gln	GLv	Val	Gln	He	Gln	Glu	Ser		Ser	Trn	Asn
. 1511	370	2,3	110	O 111	OII	375	0111	,,,	0111	010	380				
Gln		Thr	Phe	Phe	Asn		Thr	Ala	Glv	Ser		Tyr	Asn	He	Ala

385					390					395					400
He	Thr	Ala	Val	Ser	Gly	Gly	Lys	Arg	Ser	Phe	Ser	Val	Tyr	Thr	Asn
				405					410					415	
Gly	Ser	Thr	Val	Pro	Ser	Pro	Val	Lys	Asp	He	Gly	He	Ser	Thr	Lys
			420					425					430		
Ala	Asn	Ser	Leu	Leu	Ile	Ser	Trp	Ser	His	Gly	Ser	Gly	Asn	Val	Glu
		435					440					445			
Arg	Tyr	Arg	Leu	Val	Leu	Met	Asp	Lys	Gly	He	Leu	Val	His	Gly	Gly
	450					455					460				
Val	Val	Asp	Lys	His	Ala	Thr	Ser	Tyr	Ala	Phe	His	Gly	Leu	Thr	Pro
465					470					475					480
Gly	Tyr	Leu	Tyr	Asn	Leu	Thr	Val	Met	Thr	Glu	Ala	Ala	Gly	Leu	Gln
				485					490					495	
Asn	Tyr	Arg	Trp	Lys	Leu	Val	Arg	Thr	Ala	Pro	Met	Glu	Val	Ser	Asn
			500					505					510		
Leu	Lys	Val	Thr	Asn	Asp	Gly	Ser	Leu	Thr	Ser	Leu	Lys	Val	Lys	Trp
		515					520					525			
Gln	Arg	Pro	Pro	Gly	Asn	Val	Asp	Ser	Tyr	Asn	Ile	Thr	Leu	Ser	His
	530					535					540				
Lys	Gly	Thr	lle	Lys	Glu	Ser	Arg	Val	Leu	Ala	Pro	Trp	Ile	Thr	Glu
545					550					555					560
Thr	His	Phe	Lys	Glu	Leu	Val	Pro	Gly	Arg	Leu	Tyr	Gln	Val	Thr	Val
				565					570					575	
Ser	Cys	Val	Ser	Gly	Glu	Leu	Ser	Ala	Gln	Lys	Met	Ala	Val	Gly	Arg
			580					585					590		
Thr	Cys	Glu	Ser	Trp	Ala	Pro	Glu	Cys	Ser	Leu	Val	Ala	G1n	11e	Thr
		595					600					605			
Leu															

<211> 175

<212> PRT

<213> Homo sapiens

<400> 3990 Met Trp Trp His Leu Cys Thr His Ser Ala Val His Pro Pro Thr Pro 10 Ser Ser Phe Lys Arg His Ser Ser Pro Gln Lys Lys Pro Pro Val Leu 20 25 lle Lys Gln Leu Pro Leu Leu Gly Ile Pro Gln Ala Pro Leu Leu Gly 40 Ser Glu Glu Gly Leu Ala Ser Glu Arg Ser Ser Asp Asn Lys Glu Ser 50 55 60 Gly Thr His Cys Trp Ser Arg Pro Gly Leu Val Phe His Pro Ala Glu 70 75 Val Ala Glu Pro Gly Gly Ser Gly Ser Ala Thr Gly Glu Pro His Ala 90 Cys Arg Arg Ser Pro Ala Pro Pro Arg Ala Ser Pro Pro Gly Gly Ser 100 105 110 Arg Glu Leu Ser Arg Thr Arg Arg Gly Ala Gly Gly Lys Gln Trp Leu 120 Arg Ala Ala Asp Lys Pro His Val Asp Pro Arg Pro Leu Ser Leu Trp 130 135 140 Val Gly Leu Gly Asn Trp Arg Gly Gly Arg Met Ile Gly Asn Met Lys 150 155 160

<210> 3991

<211> 134

<212> PRT

<213> Homo sapiens

165

<400> 3991

Met Tyr Leu Val Ala Leu Thr Gly Pro Ser Leu Tyr Asn Pro Phe Leu

1 5 10 15

Thr Ser Ser Lys Pro Pro Ser Ser Leu Pro Leu Lys Phe Leu Phe Phe
20 25 30

Thr Ala Arg Pro Gly Trp Ser Ser Gly Lys Arg Arg His Gly His

170

Phe Asn Pro Leu Gly Leu Leu 11e Tyr His 11e Pro Gln Val Glu Pro

Arg Asp Leu Asp Phe Ser Thr Ser His Gly Ala Val Ser Ala Thr Pro Pro Ala Pro Thr Leu Val Ser Gly Asp Pro Trp Tyr Pro Trp Tyr Asn Trp Lys Gln Pro Pro Glu Arg Glu Leu Ser Arg Leu Arg Arg Leu Tyr Gln Gly His Leu Gln Glu Glu Ser Gly Pro Pro Pro Glu Ser Met Pro Lys Met Pro Pro Arg Thr Pro Ala Glu Ala Ser Ser Thr Gly Gln Thr Gly Pro Gln Ser Ala Leu <210> 3992 <211> 173 <212> PRT <213> Homo sapiens <400> 3992 Met Leu Ile Asn Leu Phe Ser Val Phe Arg Thr Leu Ser Phe Val Ser Cys Ala Thr Gln Met Phe Phe Phe Leu Gly Phe Ala Val Thr Asn Cys Leu Leu Gly Val Met Gly Tyr Asp Arg Tyr Ala Ala Ile Cys Gln Pro Leu Gln Tyr Ala Val Leu Met Ser Trp Arg Val Cys Gly Gln Leu Ile Ala Thr Cys Ile Ile Ser Gly Phe Leu Ile Ser Leu Val Gly Thr Thr Phe Val Phe Ser Leu Pro Phe Cys Gly Ser Asn Lys Val Asn His Tyr Phe Cys Asp lle Ser Pro Val lle Arg Leu Ala Cys Ala Asp Ser 

Tyr lle Gly Glu Leu Val lle Phe lle Phe Gly Val Leu Val Leu Val

Val Pro Leu Ile Phe Ile Cys Ile Ser Tyr Gly Phe Ile Val Arg Thr lle Leu Lys lle Pro Ser Ala Glu Gly Lys Gln Lys Ala Phe Ser Thr Cys Ala Ser His Leu Ile Val Val Ile Val His Tyr Gly <210> 3993 <211> 324 <212> PRT <213> Homo sapiens <400> 3993 Met Asn His Met Ser Ala Ser Leu Lys Ile Ser Asn Ser Ser Lys Phe Gln Val Ser Glu Phe Ile Leu Leu Gly Phe Pro Gly Ile His Ser Trp Gln His Trp Leu Ser Leu Pro Leu Ala Leu Leu Tyr Leu Ser Ala Leu

Ala Ala Asn Thr Leu Ile Leu Ile Ile Ile Trp Gln Asn Pro Ser Leu Gln Gln Pro Met Tyr lle Phe Leu Gly Ile Leu Cys Met Val Asp Met Gly Leu Ala Thr Thr Ile Ile Pro Lys Ile Leu Ala Ile Phe Trp Phe Asp Ala Lys Val Ile Ser Leu Pro Glu Arg Phe Ala Gln Ile Tyr Ala Ile His Phe Phe Val Gly Met Glu Ser Gly Ile Leu Leu Cys Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Pro Ser Ile Val Thr Ser Ser Leu Ile Leu Lys Ala Thr Leu Phe Met Val Leu Arg Asn Gly Leu Phe Val Thr Pro Val Pro Val Leu Ala Ala Gln Arg Asp

				165					170					175	
Tyr	Cys	Ser	Lys	Ser	Glu	He	Glu	His	Cys	Leu	Cys	Ser	Asn	Leu	G1 y
			180					185					190		
Val	Thr	Ser	Leu	Ala	Cys	Asp	Asp	Arg	Arg	Pro	Asn	Ser	He	Cys	Gln
		195					200					205			
Leu	Val	Leu	Ala	Trp	Leu	Gly	Met	Gly	Ser	Asp	Leu	Ser	Leu	He	lle
	210					215					220				
Leu	Ser	Tyr	He	Leu	lle	Leu	Tyr	Ser	Val	Leu	Arg	Leu	Asn	Ser	Ala
225					230					235					240
Glu	Ala	Ala	Ala	Lys	Ala	Leu	Ser	Thr	Cys	Ser	Ser	His	Leu	Thr	Leu
				245					250					255	
He	Leu	Phe	Phe	Tyr	Thr	11e	Val	Va]	Val	He	Ser	Val	Thr	His	Leu
			260					265					270		
Thr	Glu	Met	Lys	Ala	Thr	Leu	11e	Pro	Val	Leu	Leu	Asn	Val	Leu	His
		275					280					285			
Asn	He	He	Pro	Pro	Ser	Leu	Asn	Pro	Thr	Val	Tyr	Ala	Leu	Gln	Thr
	290					295					300				
Lys	Glu	Leu	Arg	Ala	Ala	Phe	G1n	Lys	Val	Leu	Phe	Ala	Leu	Thr	Lys
305					310					315					320
Glu	He	Arg	Ser												

<210> 3994

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3994

Met Leu Phe Gly Ser Glu 11e Cys Lys Glu Gly Lys Cys Val Asn Thr 1  $\phantom{0}$   $\phantom{0}$ 

	50					55					60				
Cys	Thr	Pro	Pro	Ala	Glu	Tyr	Ser	Pro	Ala	Gln	Arg	Gln	Cys	Leu	Ser
65					70					75					80
Pro	Glu	Glu	Met	Asp	Val	Asp	Glu	Cys	Gln	Asp	Pro	Ala	Ala	Cys	Arg
				85					90					95	
Pro	Gly	Arg	Cys	Val	Asn	Leu	Pro	Gly	Ser	Tyr	Arg	Cys	Glu	Cys	Arg
			100					105					110		
Pro	Pro	Trp	Val	Pro	Gly	Pro	Ser	Gly	Arg	Asp	Cys	Gln	Leu	Pro	Glu
		115					120					125			
Ser	Pro	Ala	Glu	Arg	Ala	Pro	Glu	Arg	Arg	Asp	Val	Cys	Trp	Ser	Gln
	130					135					140				
Arg	Gly	Glu	Asp	Gly	Met	Cys	Ala	Gly	Pro	Leu	Ala	Gly	Pro	Ala	Leu
145					150					155					160
Thr	Phe	Asp	Asp	Cys	Cys	Cys	Arg	Gln	G1 y	Arg	Gly	Trp	Gly	Ala	Gln
				165					170					175	
Cys	Arg	Pro	Cys	Pro	Pro	Arg	Gly	Ala	Gly	Ser	His	Cys	Pro	Thr	Ser
			180					185					190		
Gln	Ser	Glu	Ser	Asn	Ser	Phe	Trp	Asp	Thr	Ser	Pro	Leu	Leu	Leu	Gly
		195					200					205			
Lys	Pro	Pro	Arg	Asp	G1u	Asp	Ser	Ser	Glu	Glu	Asp	Ser	Asp	Glu	Cys
	210					215					220				
Arg	Cys	Val	Ser	Gly	Arg	Cys	Val	Pro	Arg	Pro	Gly	Gly	Ala	Val	Cys
225					230					235					240
Glu	Cys	Pro	Gly	Gly	Phe	Gln	Leu	Asp	Ala	Ser	Arg	Ala	Arg	Cys	Val
				245					250					255	
Asp	lle	Asp	Glu	Cys	Arg	Glu	Leu	Asn	Gln	Arg	Gly	Pro	Leu	Cys	Lys
			260					265					270		
Ser	Glu	Arg	Cys	Val	Asn	Thr	Ser	Gly	Ser	Phe	Arg	Cys	Val	Cys	Lys
		275					280					285			
Ala	Gly	Phe	Ala	Arg	Ser	Arg	Pro	His	Gly	Ala	Cys	Val	Pro	Gln	Arg
	290					295					300				
Arg	Arg														
305															

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<212> PRT
<213> Homo sapiens
<400> 3995
Met 11e Leu Leu Val Asn Leu Phe Val Leu Leu Ser Val Val Cys Val
                                     10
Leu Leu Asn Leu Ala Gly Phe Ile Leu Gly Cys Gln Gly Ala Gln Phe
                                 25
Val Ser Ser Val Pro Arg Cys Asp Leu Val Asp Leu Gly Glu Gly Lys
Ile Cys Phe Cys Cys Glu Glu Phe Gln Pro Ala Lys Cys Thr Asp Lys
                         55
                                             60
Glu Asn Ala Leu Lys Leu Phe Pro Val Gln Pro Cys Ser Ala Val His
65
                     70
                                         75
                                                              80
Leu Leu Lys Lys Val Leu Phe Ala Leu Cys Ala Leu Asn Ala Leu
                                     90
Thr Thr Thr Val Cys Leu Val Ala Ala Ala Leu Arg Tyr Leu Gln Ile
            100
                                105
                                                     110
Phe Ala Thr Arg Arg Ser Cys lle Asp Glu Ser Gln lle Ser Ala Glu
                            120
Glu Ala Glu Asp His Gly Arg Ile Pro Asp Pro Asp Asp Phe Val Pro
                        135
                                            140
Pro Val Pro Pro Pro Ser Tyr Phe Ala Thr Phe Tyr Ser Cys Thr Pro
145
                    150
                                        155
                                                             160
Arg Met Asn Arg Arg Met Val Gly Pro Asp Val Ile Pro Leu Pro His
                165
                                    170
Ile Tyr Gly Ala Arg Ile Lys Gly Val Glu Val Phe Cys Pro Leu Asp
            180
                                185
                                                     190 -
Pro Pro Pro Pro Tyr Glu Ala Val Val Ser Gln Met Asp Gln Glu Gln
        195
                            200
Gly Ser Ser Phe Gln Met Ser Glu Gly Ser Glu Ala Ala Val Ile Pro
                        215
                                            220
Leu Asp Leu Gly Cys Thr Gln Val Thr Gln Asp Gly Asp lle Pro Asn
225
                    230
                                        235
                                                             240
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lle Pro Ala Glu Glu Asn Ala Ser Thr Ser Thr Pro Ser Ser Thr Leu

<211> 450

				245					250					255	
Val	Arg	Pro	lle	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg	Thr	Arg
			260					265					270		
Ser	Lys	Ser	Лsp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala	Ala	Pro
		275					280					285			
Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	Arg	Leu	Asp	Leu
	290					295					300				
Ala	Ala	Val	Thr	Leu	Arg	Arg	Gly	Leu	Arg	Ser	Arg	Ala	Ser	Arg	Cys
305					310					315					320
Arg	Pro	Arg	Ser	Leu	Ile	Asp	Tyr	Lys	Ser	Tyr	Met	Asp	Thr	Lys	Leu
				325					330					335	
Leu	Val	Ala	Arg	Phe	Leu	Glu	Gln	Ser	Ser	Cys	Thr	Met	Thr	Pro	Asp
			340					345					350		
He	His	Glu	Leu	Val	Glu	Asn	He	Lys	Ser	Val	Leu	Lys	Ser	Asp	Glu
		355					360					365			
Glu	His	Met	Glu	Glu	Ala	Ile	Thr	Ser	Ala	Ser	Phe	Leu	Glu	Gln	lle
	370					375					380				
Met	Ala	Pro	Leu	Gln	Pro	Ser	Thr	Ser	Arg	Ala	His	Arg	Leu	Pro	Ser
385					390					395					400
Arg	Arg	Gln	Pro	G1 y	Leu	Leu	His	Leu	Gln	Ser	Cys	Gly	Asp	Leu	His
				405					410					415	
Thr	Phe	Thr	Pro	Ala	G1y	Arg	Pro	Arg	Ala	Glu	Arg	Arg	Pro	Arg	Arg
			420					425					430		
Val	G]u	Ala	Glu	Arg	Pro	His	Ser	Leu	He	Gly	Val	He	Arg	Glu	Thr
		435				•	440					445			
Val	Leu														
	450														
<210	)> 39	996													

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3996

Met Phe Lys Cys Leu Ile Phe Phe Val Ile Met Ser Gly Ile Met Ile

10 Val Leu Leu Ala Glu Ser Gln Ala Arg Val Asp Thr His Ile Ser Asn 25 Ser Lys Ala Ser Ala Leu Phe Met Met Cys Gln Tyr Pro Pro Thr His 35 40 45 Pro Trp 11e Leu Pro Pro Pro Pro Leu Phe Tyr Arg Asn Ala Asn Thr 60 55 Val Ser Cys Val Asn Ala Arg Met Tyr Ser Leu Ser Leu Leu Glu Ala 70 75 65 80 Trp Val Arg Pro Leu Phe Gly Arg Met Glu Leu Pro Ser Phe Leu Leu 85 90 Val Ser Ser Leu Ser Pro Leu Leu Gln Pro Cys His Gly Ser 105 110

<210> 3997

<211> 347

<212> PRT

<213> Homo sapiens

<400> 3997

Met Ser Thr Ser Ser Tyr Asn Leu Cys Gln Gln Lys Lys Arg Arg Ala 1 5 10 15

Leu Leu Arg Ala Ser Gly Val Lys Lys lle Asp Val Glu Glu Lys His
20 25 30

Glu Leu Arg Ala Ile Arg Leu Ser Arg Glu Asp Cys Gly Cys Asp Cys
35 40 45

Arg Val Phe Cys Asp Pro Asp Thr Cys Thr Cys Ser Leu Ala Gly IIe 50 55 60

Lys Cys Gln Val Asp Arg Met Ser Phe Pro Cys Gly Cys Thr Lys Glu
65 70 75 80

Gly Cys Ser Asn Thr Ala Gly Arg Ile Glu Phe Asn Pro Ile Arg Val 85 90 95

Arg Thr His Phe Leu His Thr 11e Met Lys Leu Glu Leu Glu Lys Asn 100 105 110

Arg Glu Gln Gln Ile Pro Thr Leu Asn Gly Cys His Ser Glu Ile Ser

		115					120					125			
Ala	His	Ser	Ser	Ser	Met	Gly	Pro	Val	Ala	His	Ser	Val	Glu	Tyr	Ser
	130					135					140				
He	Ala	Asp	Ser	Phe	Glu	He	Glu	Thr	Glu	Pro	Gln	Ala	Ala	Val	Leu
145					150					155					160
His	Leu	Gln	Ser	Ala	Glu	Glu	Leu	Asp	Cys	Gln	Gly	Glu	Glu	Glu	Glu
				165					170					175	
Glu	Glu	Glu	Asp	Gly	Ser	Ser	Phe	Cys	Ser	Gly	Val	Thr	Asp	Ser	Ser
			180					185					190		
Thr	Gln	Ser	Leu	Ala	Pro	Ser	Glu	Ser	Asp	Glu	Glu	Glu	Glu	Glu	Glu
		195					200					205			
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Asp	Asp	Lys	Gly	Asp	Gly
	210					215					220				
Phe	Val	Glu	Gly	Leu	Gly	Thr	His	Ala	Glu	Val	Val	Pro	Leu	Pro	Ser
225					230					235					240
Val	Leu	Cys	Tyr	Ser	Asp	Gly	Thr	Ala	Val	His	Glu	Ser	His	Ala	Lys
				245					250					255	
Asn	Ala	Ser		Tyr	Ala	Asn	Ser		Thr	Leu	Tyr	Tyr		Asn	Asp
			260					265					270		
Ser	Gly		Pro	Cys	Asn	Ser		Tyr	Pro	Glu	His		Ser	Asn	His
•-		275					280					285			
Pro		Val	Glu	Phe	His		Tyr	Leu	Lys	Gly		Ser	GIn	Glu	GLy
DI	290			,		295					300	61		15	
	Val	Ser	Ala	Leu		Gly	Asp	Ser	HIS		Ser	Glu	His	Pro	
305		c	,	C	310	. 1	61		C	315	,		61	6.1	320
Glu	Asn	Ser	Leu	Ser	Leu	Ala	Glu	Lys		116	Leu	HIS	Glu		Cys
т1.		C	D	325	V 1	Cla	TL	V = 3	330 D	V - 1				335	
116	LyS	ser.	340	Val	v 21 1	010	mr	va1 345	110	val					
			OHU					040							

<210> 3998

<211> 111

<212> PRT

<213> Homo sapiens

<400> 3998 Met Gly Glu Arg Lys Gly Ile Cys Glu Gly Asp Trp Leu Ala Lys Pro Lys Ile Phe Leu Met Trp Pro Tyr Ile Glu Lys Ala Cys Val Phe Trp 20 25 Thr Arg Ala Ile Lys Gly Asn Ser Leu Asp Leu Lys Leu Lys Ile 40 45 Asn Ser Ala Gln Ile Ala Leu Gly Ser Gln Arg Pro Cys Trp Ser Ser 50 55 60 Lys Gly Ser Val Gln Ser Val Val Ser Lys Asp Arg Ser Gln Leu Ser 70 75 Gln Glu Ser Glu Tyr Lys Tyr Ser Glu Pro lle Asn Arg Gln lle lle 90 85 Ile Tyr Thr Met Ser Gln Pro Val Asp Gly lle Ile Cys His His 100 105 110

<210> 3999

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3999

Met Arg Val Thr Ala Pro Arg Thr Leu Leu Leu Leu Leu Trp Gly Ala 1 5 10 15

Val Ala Leu Thr Glu Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe 20 25 30

His Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Thr .

35 40 45

Val Gly Tyr Val Asp Asp Thr Leu Phe Val Arg Phe Asp Ser Asp Ala
50 55 60

Thr Ser Pro Arg Lys Glu Pro Arg Ala Pro Trp lle Glu Gln Glu Gly
65 70 75 80

Pro Glu Tyr Trp Asp Gln Glu Thr Gln lle Ser Lys Thr Asn Thr Gln
85 90 95

Thr	Tyr	Arg	Glu	Ser	Leu	Arg	Asn	Leu	Arg	Gly	Tyr	Tyr	Asn	Pro	Gly
			100					105					110		
Arg	Arg	Ser	Arg	Leu	Pro	11e	Pro	His	Val	Arg	Pro	Gly	Ser	Pro	Arg
		115					120					125			
Val	Ser	Gly	Ser	Glu	He	Arg	Pro	Arg	Gly	Arg	Gly	Thr	Arg	Pro	Asp
	130					135					140				
Pro	Arg	Pro	Ala	Arg	Ala	Pro	Gly	Ala	Phe	Thr	Arg	Phe	His	Phe	Gln
145					150					155					160
Leu	Arg	Pro	Lys	Ser	Pro	Arg	Val	Gly	Arg	Gly	Gly	Ala	Gly	Leu	Gly
				165					170					175	
Gly	Thr	Gly	Leu	Thr	Ala	Gly	Ala	Gly	Pro	Gly	Ser	His	Thr	Leu	Gln
			180					185					190		
Ser	Met	Tyr	Gly	Cys	Asp	Val	Gly	Pro	Asp	Gly	Arg	Leu	Leu	Arg	G1y
		195					200					205			
His	Asn	Gln	Tyr	Ala	Tyr	Asp	Gly	Lys	Asp	Tyr	He	Ala	Leu	Asn	Glu
	210					215					220				
Asp	Leu	Arg	Ser	Trp	Thr	Ala	Ala	Asp	Thr	Ala	Ala	Gln	He	Thr	Gln
225					230					235					240
Arg	Lys	Trp	Glu	Ala	Ala	Arg	Val	Ala	Glu	Gln	Leu	Arg	Ala	Tyr	Leu
				245					250					255	
Glu	Gly	Glu	Cys	Val	Glu	Trp	Leu	Arg	Arg	Tyr	Leu	Glu	Asn	Gly	Lys
			260					265					270		
Glu	Thr	Leu	Gln	Arg	Ala	Asp	Pro	Pro	Lys	Thr	His	Val	Thr	His	His
		275					280					285			
Pro	Ile	Ser	Asp	His	Glu	Ala	Thr	Leu	Arg	Cys	Trp	Ala	Leu	Gly	Phe
	290					295					300				
Tyr	Pro	Ala	Glu	He	Thr	Leu	Thr	Trp	Gln	Arg	Asp	Gly	G1u	Asp	Gln
305					310					315					320
Thr	Gln	Asp	Thr	Glu	Leu	Val	Glu	Thr	Arg	Pro	Ala	Gly	Asp	Arg	Thr
				325					330					335	
Phe	Gln	Lys	Trp	Ala	Ala	Val	Val	Val	Pro	Ser	Gly	Glu	Glu	Gln	Arg
			340					345					350		
Tyr	Thr	Cys	His	Va]	Gln	His	Glu	G] y	Leu	Pro	Lys	Pro	Leu	Thr	Leu
		355					360					365			
Arg	Trp	Glu	Pro	Ser	Ser	Gln	Ser	Thr	Val	Pro	11e	Val	Gly	He	Val
	370					375					380				

Thr Ala

<210> 4000

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4000

Met Lys Trp Val Glu Met Thr Ser His Trp Glu Lys Thr Met Ser Arg

1 5 10 15

Arg Tyr Lys Lys Val Arg Gly Ala Gly Ala Pro Leu Gly Phe His Gly
20 25 30

Ser Phe Leu Ser Ala Ser Ala His Ile Leu Ala Lys Cys Thr His Pro 35 40 45

Val Ser Gln His Leu Arg Pro Leu Leu Pro Ala Thr Gln Ser Gly Pro
50 55 60

Leu Pro Ala Asp Glu Leu Cys Leu Gly Pro Ala Ser Arg Ser Tyr Gly
65 70 75 80

Gly Cys Leu Val Glu Pro Leu Ala Ser Pro Thr Gly Lys Asp Ala Val
85 90 95

Pro Glu Arg His Pro Val Cys Pro Ala Arg Pro Met Leu Ala Pro Val 100 105 110

Val Trp Gly Pro Cys Val Pro Glu Glu Gln Pro Trp His Leu Ser Gly
115 120 125

Glu Gly Val Gly Arg Gly Pro Asn Ser Pro Thr Gln Ser Pro Ser Pro 130 135 140

His

```
<211> 468
<212> PRT
<213> Homo sapiens
<400> 4001
Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Glu Gly
                  5
                                      10
                                                          15
 1
Val His Cys Glu Val Gln Leu Val Glu Ser Gly Gly Arg Leu Val Arg
                                 25
Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Asp Phe
         35
                             40
Ser Tyr Tyr Trp Met Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
                         55
                                              60
Glu Trp Val Ala Asn Ile Arg Lys Asp Gly Ser Asp Lys Tyr Tyr Val
                     70
                                          75
                                                              80
Asp Ser Val Lys Gly Arg Phe Ser Ile Ser Arg Asp Asn Ser Lys Asn
                 85
                                      90
                                                          95
Ser Leu Tyr Leu Gln Met Thr Ser Leu Arg Ala Asn Asp Thr Ala Val
                                 105
Tyr Tyr Cys Ala Thr Val Pro Asp Leu Asp Ser Asp Ser Phe Leu Trp
        115
                            120
                                                 125
Gly Arg Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
    130
                        135
                                             140
Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
                    150
                                         155
Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
                165
                                     170
                                                         175
Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
                                185
Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
        195
                            200
                                                 205
Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr lle Cys Asn Val Asn
    210
                        215
                                             220
```

<210> 4001

His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser
225					230					235					240
Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu
				245					250					255	
Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu
			260					265					270		
Met	He	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser
		275					280					285			
His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu
	290					295					300				
Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Ğlu	Gln	Tyr	Asn	Ser	Thr
305					310					315					320
Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn
				325					330					335	
Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro
			340					345					350		
Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln
		355					360					365			
Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val
	370					375		•			380				
Ser	Leu	Thr	Cys	Leu	Val	Lys	G1 y	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val
385					390					395					400
Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro
				405					410					415	
Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr
			420					425					430		
Val	Gly	Lys	Ser	Arg	Trp	Gln	G1n	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val
		435					440					445			
Met	His	Glu	Gly	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu
	450					455					460				
Ser	Pro	Gly	Lys												
465															

<210> 4002 <211> 159 <212> PRT <213> Homo sapiens <400> 4002 Met Asp Met Gly Leu Lys Leu Gly His Pro Thr Leu Thr Gly Asn Trp Gln Ile Ser Asp Pro Asn Ala Leu Ser Pro Pro Ser Pro Leu Thr Pro Gln Pro Ala Ile Thr Lys Arg Pro Lys Ala Cys Phe Phe His Gln Pro Pro Ala Gln Phe Leu Phe Ser Thr Arg Lys Ala Gly Val Val Leu Thr Pro Tyr Ile Pro Pro Ala Pro Arg Arg Ile Gly Phe Thr Val Gly Arg Val Ala Ile Lys Pro Glu Pro Ser Gln Pro Thr Arg Ser Gln Arg Glu Lys Ala Arg Gly Gly Arg Thr Ser Val Val Leu Ser Ile Asn Trp Leu Trp Gly Gly Gly Met Gly Trp Ser Ser His Leu Ala Ser His Leu Val Met Arg Thr Ser Lys Asn Leu Gln Gln Glu Arg Ser Phe His Ser Lys Val Lys Gly Arg Gly Ala Ala Ala Leu Gly Leu Pro Gly Arg Asn <210> 4003 <211> 169 <212> PRT <213> Homo sapiens <400> 4003 Met Ser Ala Pro Pro Ala Leu Gln lle Arg Glu Ala Asn Ala His Leu

Ala Ala Val His Arg Arg Ala Ala Glu Leu Glu Ala Arg Leu Asp Ala

Ala Glu Arg Thr Val His Ala Gln Ala Glu Arg Leu Ala Leu His Asp Gln Gln Leu Arg Ala Ala Leu Asp Glu Leu Gly Arg Ala Lys Asp Arg 50 Glu lle Ala Thr Leu Gln Glu Gln Leu Met Thr Ser Glu Ala Thr Val 75 His Ser Leu Gln Ala Thr Val His Gln Arg Asp Glu Leu Ile Arg Gln 90 Leu Gln Pro Arg Ala Glu Leu Leu Gln Asp Ile Cys Arg Arg Pro 105 Pro Leu Ala Gly Leu Leu Asp Ala Leu Ala Glu Ala Glu Arg Leu Gly 120 Pro Leu Pro Ala Ser Asp Pro Gly His Pro Pro Pro Gly Gly Pro Gly 130 135 140 Pro Pro Leu Asp Asn Ser Thr Gly Glu Glu Ala Asp Arg Asp His Leu 150 160 145 155 Gln Pro Ala Val Phe Gly Thr Thr Val 165

<210> 4004

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4004

65

75

80

Met Ser Ser Met Leu Leu Leu Arg Leu Ser Trp Leu Asp Thr Arg Leu Ala Trp Asn Thr Ser Ala His Pro Arg His Ala Ile Thr Leu Pro Trp Glu Ser Leu Trp Thr Pro Arg Leu Thr Ile Leu Glu Ala Leu Trp Val Asp Trp Arg Asp Gln Ser Pro Gln Ala Arg Val Asp Gln Asp Gly His Val Lys Leu Asn Leu Ala Leu Thr Thr Glu Thr Asn Cys Asn Phe Glu Leu Leu His Phe Pro Arg Asp His Ser Asn Cys Ser Leu Ser Phe Tyr Ala Leu Ser Asn Thr Gly Ala Asp Arg Ala Gly Ala Ala Gly Leu Arg Arg Gly Gly Gly Arg Trp Gly Arg Gly Thr Pro Arg Ser Val Val Gln Gly Gln Gly Ala Gly Gln Gly Glu Gly Ala Lys Ala Asp Arg Arg Thr Pro Arg Ser Val Phe Arg Ala Val Tyr Pro Arg Leu Arg Arg Ala Ala Pro Ala Leu Pro Leu Arg Pro Pro Leu Glu Trp Gln Pro Ile Ser Val Leu Ser Gly Ser Leu Arg Ala Pro Leu 

<210> 4005

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4005

Met Asp Trp Thr Trp Arg Phe Leu Phe Val Val Ala Ala Ala Thr Gly

1 5 10 15

Val Gln Ser Gln Val Gln Val Gln Ser Gly Ala Glu Val Lys Lys

20 25 30

Pro	Gly	Ser	Ser	Val	Lys	Leu	Ser	Cys	Lys	Ala	Pro	Gly	Val	Thr	Leu
		35					40					45			
Thr	Ser	Tyr	Ser	Leu	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu
	50					55					60				
Glu	Trp	Met	Gly	Arg	Пе	Val	Pro	Thr	Val	Gly	He	Ala	Thr	He	Gly
65					70					75					80
Gln	Asn	Phe	Lys	Gly	Arg	Val	Thr	Ile	Thr	Ala	Asp	Lys	Ser	Thr	Arg
				85					90					95	
Thr	Ala	Tyr	Leu	Glu	Val	Asn	Ser	Leu	Gly	Ser	Glu	Asp	Thr	Ala	Thr
			100					105					110		
Tyr	Tyr	Cys	Ala	Ser	Gly	Gln	Asp	Val	Asp	Phe	Arg	Arg	Gly	Val	Ala
		115					120					125			
Phe	Glu	Met	Trp	Gly	Gln	Gly	Thr	Met	Val	He	Val	Ser	Ser	Ala	Ser
	130					135					140				
Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr
145					150					155					160
Ser	G1 y	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro
				165					170					175	
Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val
			180					185					190		
His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser
		195					200					205			
Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Thr
	210					215					220				
Cys	Asn	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val
225					230					235					240
Glu	Leu	Lys	Thr	Pro	Leu	Gly	Asp	Thr	Thr	His	Thr	Cys	Pro	Arg	Cys
				245					250					255	
Pro	Glu	Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro
			260					265					270		
Glu	Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Glu
		275					280					285			
Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Ala	Pro
	290					295					300				
Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys
305					310					315					320

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Leu Arg Glu Glu Gln Tyr Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Asn Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys <210> 4006

<210/ 4000

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4006

Met Ser Lys Ala Gln Cys lle Val Ala Asn Glu Ala Met Ala Pro Val

1 5 10 15

Val Asn Ser Ala Val Ser Asp Cys Pro Thr Leu Lys Thr Lys Leu Leu 25 Val Ser Asp Lys Ser Tyr Asp Gly Trp Leu Asp Phe Lys Lys Leu Ile 35 40 45 Gln Val Ala Pro Pro Lys Gln Thr Tyr Met Arg Thr Lys Ser Gln Asp 55 Pro Met Ala Ile Phe Phe Thr Lys Gly Thr Thr Gly Ala Pro Lys Met 70 Val Glu Tyr Ser Gln Tyr Gly Leu Gly Met Gly Phe Ser Gln Ala Ser 90 Arg Arg Trp Met Asp Leu Gln Pro Thr Asp Val Leu Trp Ser Leu Gly 105 100 Asp Ala Phe Gly Gly Ser Leu Ser Leu Ser Ala Val Leu Gly Thr Trp 115 120 125 Phe Gln Gly Ala Cys Val Phe Leu Cys His Met Pro Thr Phe Cys Pro 135 140 Glu Thr Val Leu Asn Val Leu Ser Arg Phe Pro Ile Thr Thr Leu Ser 150 155 Ala Asn Pro Glu Met Tyr Gln Glu Leu Leu Gln His Lys Cys Phe Thr 165 170 175 Arg Val Tyr Ser Val Pro Leu Pro Lys Gln 180 185

<210> 4007

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4007

Met Glu Glu Val Ile Phe Glu Glu Arg Ser Glu Glu Gly Lys Gly Val I 1 5 10 15 15 Gly Thr Glu Asp Ile Gly Gly Thr Val Leu Pro Glu Thr Ser Gly Gln Cln 20 25 30 Pro Gly Thr Gly Thr Thr Ser Arg Lys Gly Ser Cys Glu Gly Phe Val 35 40 45

Phe Ser Leu Gln Phe Val Asn Val Asn Thr Met Leu Thr Pro Lys Asn Ser Lys Phe Pro Thr Trp Leu Leu Cys Leu Pro Pro Ser Phe Pro Pro Phe Leu Pro Pro Ser Phe Leu Ser Ser Phe Leu Pro Ser Val Leu Pro Phe Phe Pro lle Cys Pro Thr Ser Met Asp Glu Phe Ser Ser Ser Leu Gly Cys Phe Leu His Cys Thr 

<210> 4008

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4008

Met Gly Pro Leu Ser Pro Tyr Ala Trp Ala Phe Ser His Thr Val Glu Cys Ile Phe Ile Phe Asn Lys Ser Leu His Ala Phe Leu Ala Leu Cys Val Leu Ser Asn Ser Leu Leu Lys Thr Ser Arg Thr Trp Thr Pro Thr Thr Gly Asn Val Tyr Phe Gly Gln Pro Gly Gly Arg Ser Lys Pro Lys Val Trp Asp Ser Phe Phe Ser Leu Ser Phe Leu Leu His Thr Arg Ala Phe Ser Phe His Phe Gln Leu Gly Thr Leu Gly Gly Gln His Leu Asn Val Glu Ala Thr Ala Gly Phe Trp Leu Trp Pro Val Lys Leu Met Gly Phe Arg Ala Glu Lys Ala Asp Cys His Leu Leu Val Cys Leu Arg Asn Leu Gly Leu Phe His Phe Phe Phe Leu Tyr Phe Ser Val Phe Lys Ser

 Leu
 Phe
 I1e
 A1a
 Leu
 Pro
 Arg
 Arg
 Gly
 Asn
 Asp
 Phe
 Phe
 Phe
 Phe
 Tyr

 145
 156
 150
 150
 150
 155
 155
 156
 160
 160

 Leu
 Phe
 Cys
 Phr
 Tyr
 Asp
 Pro
 Met
 Cys
 Gly
 Ala
 Val
 Gly
 Ser

 Lys
 Leu
 Ala
 His
 Val
 Leu
 Arg
 Asp
 Leu
 Asp
 Leu
 Asp
 Leu
 Asp
 Leu
 His
 Pro
 Ala

 Ser
 Leu
 Tyr
 Leu
 Arg
 Asp
 Leu
 Asp
 Leu
 Leu
 Asp
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 Asp
 Leu
 Asp
 Leu
 Asp
 Leu
 Leu
 Asp
 Asp
 Leu
 Asp
 Leu

<210> 4009

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4009

Ser Leu Val Asp Ala Pro Ser Glu Gln Pro Cys Thr Glu Pro Arg Ala 65 70 75 80

Gly Pro Gly Arg Cys Thr Leu Ala Leu Gly Asp Ser Ser Phe Thr Glu 85 90 95

Thr Thr Ile Ile Leu Trp Phe Gln Gly Gly Asn 100 105

<210> 4010

<211> 128

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<212> PRT
<213> Homo sapiens
<400> 4010
Met Tyr Ile Gln Phe Cys Ile Thr Leu Phe Ser Phe Ser Phe Phe Phe
                  5
                                     10
Phe Phe Phe Cys Phe Leu Arg Gln Gly Leu Pro Leu Ser Leu Arg
                                 25
             20
Leu Gln Cys Ser Gly Thr Ile Leu Ala His Cys Asn Leu Arg Phe Leu
         35
                             40
                                                  45
Gly Ser Asn Asp Pro Pro Thr Ser Ala Ser Gln Val Ala Trp Thr Thr
                         55
                                              60
Gly Val His His His Ile Ser Leu Ile Phe Val Phe Val Glu Met Arg
                     70
                                          75
                                                              80
65
Phe Cys Cys Val Ala Gln Val Gly Leu Glu Tyr Leu Gly Ser Ser Glu
                                     90
Leu Ser Ala Leu Asp Ser Gln Ser Ala Gly Ile Thr Gly Val Ser Gln
            100
                                105
Cys Ala Trp Pro Ala Leu Cys Phe Phe Ser Phe Ala Val Ala Cys Tyr
                            120
                                                 125
        115
<210> 4011
<211> 167
<212> PRT
<213> Homo sapiens
<400> 4011
Met Gly Pro Val Cys Arg Gly Ser Ser Gly Pro Leu Arg Val Ala Gly
 1
                  5
                                     10
                                                          15
Gly Ser Trp Thr Cys Leu Gly Gly Gln Thr Pro Gly Arg Gly Gln Leu
                                 25
Arg Arg Ser Ala Ser Asp Phe Ser Gly His Leu Gly Ser Pro Ile Pro
         35
                             40
                                                  45
```

lle Ala Pro Gly Leu Asp Pro Leu Pro Val Leu Ser Thr Phe Ser Val

Thr Leu Asn Ala Leu Pro Ala Ile Ser Ala Ser Gly Arg Ile His Glu 70 75 Gly Val Gly Arg Asp Val Arg Pro Gly Phe Gly Ser Gln Leu Ser His 85 90 95 Leu Ile Ala Met Arg Pro Cys Thr Ile Pro Phe Asn Phe Pro Ser Leu 100 105 Ser Phe Phe Leu Cys Lys Met Gly Ile Gln Arg Asp Ser Leu Leu Ala 120 125 Arg Asp Ser Trp Cys Leu Ile Arg Leu Lys Leu Pro Tyr Leu Gln Ser 135Lys Lys Pro Cys Asp Glu Lys Leu Phe Cys Gln Tyr Ala Ala Asn Ser 150 155 160 Phe Gly Pro Gln Asn Leu Thr 165

<210> 4012

<211> 534

<212> PRT

<213> Homo sapiens

<400> 4012

Met Glu Phe Gly Val Phe Pro Met Glu Ala Thr His Ser Ser Ile Asp 1 5 10 15

Glu Glu Gly Tyr 11e Gln Gly Ser Gln Arg Asp Arg Gly Ser Ser Leu 20 25 30

Val Asp Thr Glu Glu Ala Lys Thr Lys Ser Glu Asn Val Leu His Asp 35 40 45

Gln Ala Ala Lys Val Asp Lys Asp Asp Gly Lys Glu Thr Gly Glu Thr 50 55 60

Phe Thr Phe Lys Arg His Ser Gln Asp Ala Ser Gln Asp Val Lys Leu 65 70 75 80

Tyr Ser Asp Thr Ala Pro Thr Glu Asp Leu Ile Glu Glu Val Thr Ala 85 90 95

Asp His Pro Glu Val Val Thr Met 11e Glu Glu Thr 11e Lys Met Ser 100 105 110

Gln	Asp	lle	Asn	Phe	Glu	Gln	Pro	Tyr	Glu	Lys	His	Ala	Glu	He	Leu
		115					120					125			
Gln	Glu	Val	Leu	Gly	Glu	Val	Met	Glu	Glu	Asn	Lys	Asp	Arg	Phe	Pro
	130					135					140				
Gly	Ala	Pro	Lys	Tyr	Gly	Gly	Trp	He	Val	Asp	Asn	Cys	Pro	He	Val
145					150					155					160
Lys	Glu	Leu	Trp	Met	Ala	Leu	11e	Lys	Lys	Gly	He	He	Pro	Asp	Leu
				165					170					175	
Val	Ile	Tyr	Leu	Ser	Asp	Thr	Glu	Asn	Asn	Gly	Lys	Cys	Leu	Phe	Asn
			180					185					190		
Arg	He	Tyr	Leu	Gln	Lys	Lys	Ser	Glu	Ile	Asp	Ser	Lys	Ile	Leu	Glu
		195					200					205			
Arg	Leu	Leu	Glu	Glu	Leu	Gln	Lys	Lys	Lys	Lys	Glu	Glu	Glu	Glu	Ala
	210					215					220				
Arg	Lys	Ala	Thr	Glu	Glu	Glu	Leu	Arg	Leu	Glu	Glu	Glu	Asn	Arg	Arg
225					230					235					240
Leu	Leu	Glu	Leu	Met	Lys	Val	Lys	Ala	Lys	Glu	Ala	Glu	Glu	Thr	Asp
				245					250					255	
Asn	Glu	Val	Glu	Glu	Glu	He	Glu	Gly	Asp	Glu	Leu	Glu	Val	His	Glu
			260					265					270		
Glu	Pro	Glu	Ala	Ser	His	Asp	Thr	Arg	Gly	Ser	Trp	Leu	Pro	Glu	Glu
		275					280					285			
Phe	Glu	Ala	Ser	Glu	Val	Pro	Glu	Thr	Glu	Pro	Glu	Ala	Val	Ser	Glu
	290					295					300				
Pro	He	Glu	Glu	Thr	Thr	Val	Glu	Thr	Glu	He	Pro	Lys	Gly	Ser	
305					310					315					320
Glu	Gly	Leu	Glu		Glu	Lys	Leu	Ser		Thr	Val	Val	Leu		Glu
				325					330					335	
Phe	Pro	G1u		Ser	Tyr	Pro	Asp		Pro	Glu	Met	Glu		Phe	Lys
			340					345					350		
Glu	Lys		Gly	Ser	Phe	He		Leu	Trp	Lys	Gln		Glu	Ala	Thr
	_	355		_			360					365			
He		Glu	Ala	Tyr	He	Lys	He	Leu	Asn	Leu		He	Ala	Asp	Arg
m.	370	0.1	0.1		,	375			., .		380		<i>a</i> :	,	Б
	Pro	61n	Glu	Leu		Gln	Lys	Val	Va]		lhr	Met	Glu	Lys	
385					390					395					400

Phe Gln Tyr Thr Ala Trp Glu Leu Thr Gly Glu Asp Tyr Glu Glu Glu 405 410 Thr Glu Asp Tyr Gln Thr Glu Ala Glu Val Asp Glu Glu Leu Glu Glu 420 425 430 Glu Glu Glu Glu Gly Glu Asp Lys Met Lys Glu Arg Lys Arg His 440 Leu Gly Asp Thr Lys His Phe Cys Pro Val Val Leu Lys Glu Asn Phe 455 Ile Leu Gln Pro Gly Asn Thr Glu Glu Ala Ala Lys Tyr Arg Glu Lys 465 470 475 Ile Tyr Tyr Phe Ser Ser Ala Glu Ala Lys Glu Lys Phe Leu Glu His 490 485 Pro Glu Asp Tyr Val Ala His Glu Glu Pro Leu Lys Val Arg Gln Tyr 500 505 510 Ser Tyr Leu Asn Asp Cys Ser His Arg lle Phe Leu Gly Leu Ile Thr 515 520 525 Asn His His Gln Phe Thr 530

<210> 4013

<211> 572

<212> PRT

<213> Homo sapiens

<400> 4013

Met Ala Ser Ser Glu Thr Glu IIe Arg Trp Ala Glu Pro Gly Leu Gly

1 5 10 15

Lys Gly Pro Gln Arg Arg Arg Trp Ala Trp Ala Glu Asp Lys Arg Asp 20 25 30

Val Asp Arg Ser Ser Ser Gln Ser Trp Glu Glu Glu Arg Leu Phe Pro
35 40 45

Asn Ala Thr Ser Pro Glu Leu Leu Glu Asp Phe Arg Leu Ala Gln Gln 50 55 60

His Leu Pro Pro Leu Glu Trp Asp Pro His Pro Gln Pro Asp Gly His
65 70 75 80

Gln	Asp	Ser	Glu		Gly	GIu	Thr	Ser	G1 y	Glu	Glu	Ala	Glu		
				85					90					95	
Asp	Val	Asp	Ser	Pro	Ala	Ser	Ser	His	Glu	Pro	Leu	Ala	Trp	Leu	Pro
			100					105					110		
Gln	Gln	Gly	Arg	Gln	Leu	Asp	Met	Thr	Glu	Glu	Glu	Pro	Asp	G]y	Thr
		115					120					125			
Leu	Gly	Ser	Leu	Glu	Val	Glu	Glu	Ala	Gly	Glu	Ser	Ser	Ser	Arg	Leu
	130					135					140				
Gly	Tyr	Glu	Ala	Gly	Leu	Ser	Leu	Glu	Gly	His	Gly	Asn	Thr	Ser	Pro
145					150					155					160
Met	Ala	Leu	Gly	His	Gly	Gln	Ala	Arg	Gly	Trp	Val	Ala	Ser	Gly	Glu
				165					170					175	
Gln	Ala	Ser	Gly	Asp	Lys	Leu	Ser	Glu	His	Ser	Glu	Val	Asn	Pro	Ser
			180					185					190		
Val	Glu	Leu	Ser	Pro	Ala	Arg	Ser	Trp	Ser	Ser	Gly	Thr	Val	Ser	Leu
		195					200					205			
Asp	His	Pro	Ser	Asp	Ser	Leu	Asp	Ser	Thr	Trp	Glu	Gly	Glu	Thr	Asp
	210					215					220				
Gly	Pro	Gln	Pro	Thr	Ala	Leu	Ala	Glu	Thr	Leu	Pro	Glu	Gly	Pro	Ser
225					230					235					240
His	His	Leu	Leu	Ser	Pro	Asp	Gly	Arg	Thr	Gly	Gly	Ser	Val	Ala	Arg
				245					250					255	
Ala	Thr	Pro	Met	Glu	Phe	Gln	Asp	Ser	Ser	Ala	Pro	Pro	Ala	Gln	Ser
			260					265					270		
Pro	Gln	His	Ala	Thr	Asp	Arg	Trp	Arg	Arg	Glu	Thr	Thr	Arg	Phe	Phe
		275					280					285			
Cys	Pro	Gln	Pro	Lys	Glu	His	lle	Trp	Lys	Gln	Thr	Lys	Thr	Ser	Pro
	290					295					300				
Lys	Pro	Leu	Pro	Ser	Arg	Phe	He	Gly	Ser	He	Ser	Pro	Leu	Asn	Pro
305					310					315					320
Gln	Pro	Arg	Pro	Thr	Arg	Gln	61 y	Arg	Pro	Leu	Pro	Arg	Gln	Gly	Ala
				325					330					335	
Thr	Leu	Ala	Gly	Arg	Ser	Ser	Ser	Asn	Ala	Pro	Lys	Tyr	G1 y	Arg	Gly
			340					345					350		
Gln	Leu	Asn	Tyr	Pro	Leu	Pro	Asp	Phe	Ser	Lys	Va]	Gly	Pro	Arg	Val

		355					360					365			
Arg	Phe	Pro	Lys	Asp	Glu	Ser	Tyr	Arg	Pro	Pro	Lys	Ser	Arg	Ser	His
	370					375					380				
Asn	Arg	Lys	Pro	Gln	Ala	Pro	Ala	Arg	Pro	Leu	He	Phe	Lys	Ser	Pro
385					390					395					400
Ala	Glu	He	Val	Gln	Glu	Val	Leu	Leu	Ser	Ser	Gly	Glu	Ala	Ala	Leu
				405					410					415	
Ala	Lys	Asp	Thr	Pro	Pro	Ala	His	Pro	Пe	Thr	Arg	Val	Pro	Gln	Glu
			420					425					430		
Phe	G1n	Thr	Pro	Glu	Gln	Ala	Thr	Glu	Leu	Val	His	Gln	Leu	G1n	Val
		435					440					445			
Ser	Gly	Thr	His	Gly	Cys	Gly	Cys	Va]	Thr	Lys	Ala	Pro	Val	Gly	Leu
	450					455					460				
Gly	Trp	Arg	Leu	He	Gly	Val	Gly	Arg	Pro	Gly	Val	Glu	Ala	Gly	Trp
465					470					475					480
G1 y	G1 y	Glu	Ala	Trp	Asp	Arg	Ala	Trp	Leu	Gly	Trp	Glu	Ala	Leu	Gly
				485					490					495	
Arg	Arg	Leu	Val	Gly	Trp	Gly	Gly	Leu	Gly	Trp	Arg	Leu	Ala	Arg	Val
			500					505					510		
Gly	Ser	Pro	Gly	Met	Glu	Ala	Ser	Gly	Val	Gly	Arg	Pro	Gly	Val	Gly
		515					520					525			
Ser	Pro	Gly	Val	Glu	Pro	Gly	Gly	Val	Gly	Arg	Pro	Gly	Val	Glu	Ala
	530					535					540				
Gly	Trp	Gly	Arg	Lys	Pro	Trp	Asp	Arg	Gly	Trp	Trp	Gly	Gly	Glu	Ala
545					550					555					560
Trp	Gly	Gly	Gly	Trp	Leu	Gly	Gln	Glu	Ala	Leu	Gly				
				565					570						

<210> 4014

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4014

Met Ser Met Gln Arg Leu Ala Pro Lys Lys Thr Arg Lys Glu Gln Ser

10 Ala Asn Asp His Pro Ile Gly Gly Pro Glu Gly Arg Leu Phe Thr Ser 25 Gln Leu Gln Leu Lys Phe Arg Ala Leu Ser Glu Arg Asn Ser Trp Leu 35 40 45 Glu Val Ser Arg Ala Val Thr Pro Thr Ser Ala Ala Val Thr Ser Thr 55 Pro Ser Thr Ser Lys Pro Arg Gln Lys Arg Pro Thr Asn Ser Gln Ser 70 75 80 65 Arg Ser Ala Ala Lys Pro Thr Pro Val Val Phe Leu Gln Lys Ile Ile 85 90 95 Asn Cys Gly Glu Glu Gly Lys 100

<210> 4015

<211> 226

<212> PRT

<213> Homo sapiens

<400> 4015

Met Gly Phe Cys Tyr Val Ala Gln Ala Gly Leu Lys Leu Leu Gly Ser 1 5 10 15

Ser Asp Leu Pro Thr Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly Met 20 25 30

Ser His Trp Ala Trp Pro Ser Leu Phe Ser Tyr Phe Leu Gly Thr Cys

40
45

Arg Pro Glu lle His Met His Leu Ser Leu Leu Pro Asp Arg Arg Thr
50 55 60

His Trp Asn Val Gly lle Asp Phe Thr Ala Ser Asn Gly Asn Pro Leu 65 70 75 80

Asp Pro Ser Ser Leu His Tyr lle Asn Pro Met Gly Thr Asn Glu Tyr 85 90 95

Leu Ser Ala Ile Trp Ala Val Gly Gln Ile Ile Gln Asp Tyr Asp Ser 100 105 110

Asp Lys Met Phe Pro Ala Leu Gly Phe Gly Ala Gln Leu Pro Pro Asp

Trp Lys Gln Tyr Phe Ile Leu Leu Ile Ile Thr Asp Gly Val Ile Ser Asp Met Glu Glu Thr Arg His Ala Val Val Gln Ala Ser Lys Leu Pro Met Ser Ile Ile Ile Val Gly Val Gly Asn Ala Asp Phe Ala Ala Met Glu Phe Leu Asp Gly Asp Ser Arg Met Leu Arg Ser His Thr Gly Glu Glu Ala Ala Arg Asp Ile Val Gln Phe Val Pro Phe Arg Glu Phe Arg Asn Val Ser Val Gly Leu Gly Trp Glu Gly Ala Val Thr Gly Ser Gln Pro Pro <210> 4016 <211> 120 <212> PRT <213> Homo sapiens <400> 4016 Met Gly Arg Arg Asp Gly Asp Glu Arg Ser Cys Ser Gly Leu Gly Thr Pro Lys Ala Ala Asp Ser lle Trp Leu Ser Val Pro Gln Ser Pro Leu Leu Cys Thr Lys Phe Thr Val Leu Ala Leu Lys Ser Asn Phe Glu Phe Ser Lys Asp Val Cys lle Ala His Ala Asn Glu Leu Ser Val His Trp Asn Asp Thr lle Thr Thr Gln Met Lys Arg Thr Gly Trp Asn Ile His Gln Pro Thr Asn Val Ile Ser Gln Pro Thr Leu Gln Thr Pro Ser Gln 

Lys Ser lle Gln Phe Arg Ile Ala His Cys Trp Gln Arg Lys Asn Val

100 105 110 Thr Asn Leu Phe Thr Gly Glu Tyr <210> 4017 <211> 184 <212> PRT <213> Homo sapiens <400> 4017 Met Thr Ser Cys Ser Met Ala Pro Ser Thr Pro Ser Ser Ser Ser Gly 10 Ala Lys Ala Trp Arg Arg Ser Pro Glu Ala Pro Ser Pro Trp Ser Cys 20 25 Ser Ser Glu Cys Arg His Asn Glu Ala Tyr Thr Trp Thr Asn Pro Thr 40 Cys Cys Val His Asn Val Ile Ile Gly Lys Leu Trp Ile Glu Gln Tyr 50 60 55 Gly Thr Val Glu Ile Leu Asn His Arg Thr Gly His Lys Cys Val Leu 70 65 His Phe Lys Pro Cys Gly Leu Phe Gly Lys Glu Leu His Lys Val Glu 90 Gly His Ile Gln Asp Lys Asn Lys Lys Lys Leu Phe Met Ile Tyr Gly 100 105 110 Lys Trp Thr Glu Cys Leu Trp Gly Ile Asp Pro Val Ser Tyr Glu Ser 120 Phe Lys Lys Gln Glu Arg Arg Gly Asp His Leu Arg Lys Ala Lys Leu 130 135 140 Val Arg Ala Gly Ala Ser Pro Gly Arg Ala Glu Pro Trp Val Leu Arg 145 150

Ala Ala Arg Pro Leu Leu Pro Leu Ala His Leu Leu Gly Ser Gln Gly

170

Thr Phe Gly Pro His Gln Glu Arg 180

<211> 108 <212> PRT <213> Homo sapiens <400> 4018 Met Ser Thr Ser Leu Leu Ile Cys Lys Ser Arg Ser Cys Phe Leu Val 5 1 10 15 Tyr Leu Ala Cys Val Tyr Leu Tyr Gly Val Ala Arg Arg Asp His Arg 20 25 Asn Ala Cys Ser Leu Arg Gln Gly Phe Gln Thr Val Gly Pro Ser Pro 40 Phe Ser Lys Met Gly Asn Gln Leu Ala Ser Gly His Gln His Tyr Thr 50 55 60 Ala Met Lys Gln Asn Lys Val Gly Gln Asn Ala Ser Cys Ser Lys Gly 70 75 Lys Tyr Cys Phe Val Lys Leu Phe Thr His Thr Ser Lys Cys Glu Asn 85 90 95 Trp Leu Gln Cys Lys Thr Phe Leu Ala Gly Lys Leu 100 105 <210> 4019 <211> 107 <212> PRT <213> Homo sapiens <400> 4019 Met lle Ser Lys Arg Phe Leu Ser Lys Ala Asp Leu Leu Gln Asn Gly Ala Ala Cys Thr Pro Gly His Ser Glu Ser Thr Pro Asn Lys Gly 20 25 Gly Glu Val Val Phe lle Pro Asn Thr Ala Ser Ser Cys Phe Cys Val 35 40 45

Leu Ser Pro Leu Ala Arg Val Gln Ser Lys Leu Val Leu Ile Gly Tyr

<210> 4018

50 55 60 Phe Lys Gln Glu Gly Cys Gly Leu Gln Gln Trp Glu Glu Gln Leu Pro 70 65 75 Arg Ala Arg Glu Thr Phe Pro Asp Lys Glu Gln Met Arg Val Thr Gly 85 90 95 Trp Asp Trp Trp Glu Lys Cys Leu Gln Asn Gly 100 105 <210> 4020 <211> 106 <212> PRT <213> Homo sapiens <400> 4020 Met Lys Glu Ile Val Asp Val Thr Arg Val Arg Asn Glu Gly Phe Gln 10 Asp Lys Asn Leu Gly Glu Ile Gln Gln Leu Ile Gly Thr Thr Thr Glu 20 25 Glu Leu Thr Glu Asp Asp Leu Thr Glu Met Ser Val Leu Lys Pro Met 40 45 Pro Asp Asn Glu Glu Lys Glu Ile Glu Ala Ala Val Pro Glu Asn Lys 55 60 Met Thr Leu Asp Asn Leu Ala Ala Glu Phe Pro Leu Phe Lys Thr Ser 65 70 75 80 Phe Asp Phe Phe Tyr Asp Met Asp Ser Ser Met Gly Thr Glu Thr Lys 85 90 95 Ala Asn Gly Glu Arg Arg lle Gly Thr lle 100 105

<210> 4021

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4021 Met Gly Leu Arg Trp Ser Arg Arg Leu Trp Pro Val Val His Ser Trp Val Pro Ala Ser Gly Gly Thr His Cys Thr Tyr Gln Gly Ser Pro Ser His Leu Leu Thr Gln Ala Leu Gly Leu Thr Gly Pro Pro Pro Ala Ser Leu Ala Ala Phe Leu Ser Pro Trp Glu Ala Glu Pro Pro Ser Asp Pro Leu Ser Pro Glu Ser Thr Ile Ala Leu Phe Ser Leu Asn Val Leu Ile Phe Glu Met Ala Ala Ser Gly Pro Ser Glu Gly Arg Met Arg Glu Asn Val Gly Gln Thr Arg Leu Glu Val Pro Cys Cys Asn Glu Val Cys Ser Pro Thr <210> 4022 <211> 114 <212> PRT <213> Homo sapiens <400> 4022 Met Leu Leu Asn Glu Lys Trp Leu Pro Tyr Pro Glu Val Pro Ser Pro Phe Leu Leu Gly Leu Thr Leu Ala His Gln Glu Leu Gly Cys Ser Pro Val Asn Arg Thr Ser Met Gln Val Trp Asn Leu Ala Asn Cys Lys Leu Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val 

Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Val Phe Gly Asp

 Lys
 Ala
 Ser
 Pro
 Thr
 Gln
 Trp
 Lys
 Thr
 Ala
 Ser
 Trp
 Lys
 Glu
 His
 Leu

 Ala
 Ser
 Val
 Ser
 Asn
 Val
 Lys
 Trp
 Gln
 Thr
 Leu
 Ala
 Lys
 Met
 Val
 Leu

 Gly
 G

<210> 4023

<211> 163

<212> PRT

<213> Homo sapiens

<400> 4023

Met Ser Thr Thr Ser lle Ser Ser Pro Gln Pro Gly Lys Leu Arg Ser

1 5 10 15

Pro Phe Leu Gln Lys Gln Leu Thr Gln Pro Glu Thr His Phe Gly Arg
20 25 30

Glu Pro Ala Ala Ala Ile Ser Arg Pro Arg Ala Asp Leu Pro Ala Glu 35 40 45

Glu Pro Ala Pro Ser Thr Pro Pro Cys Leu Val Gln Ala Glu Glu Glu 50 55 60

Ala Val Tyr Glu Glu Pro Pro Glu Gln Glu Thr Phe Tyr Glu Gln Pro 65 70 75 80

Pro Leu Val Gln Gln Gln Gly Ala Gly Ser Glu His Ile Asp His His
85 90 95

lle Gln Gly Gln Gly Leu Ser Gly Gln Gly Leu Cys Ala Arg Ala Leu

100 105 110

Tyr Asp Tyr Gln Ala Ala Asp Asp Thr Glu 11e Ser Phe Asp Pro Glu 115 120 125

Asn Leu lle Thr Gly lle Glu Val lle Asp Glu Gly Trp Trp Arg Gly 130 135 140

Tyr Gly Pro Asp Gly His Phe Gly Met Phe Pro Ala Asn Tyr Val Glu 145 150 155 160

Leu lle Glu

<210> 4024 <211> 115 <212> PRT <213> Homo sapiens <400> 4024 Met Met Cys Val Met Ser Arg Leu Ser Val Pro Thr Asn Ser Tyr 10 Glu Met Glu Pro Leu Gly Gln Ser Ser Glu Leu Val Leu Leu Leu Phe 25 Leu Asp Lys Gly Leu Leu Leu Leu IIe Leu Ser IIe Asp Arg Asn Gln 35 40 45 Glu Glu Asn Thr Phe Thr Arg Leu Ile Ile Thr Tyr Lys Val Leu Gln 55 60 Ala Val Leu Met Cys Ser Ser Glu Asp Ile Ser Gly Thr Ala Ala Met 65 70 75 80 lle Glu Pro Thr Tyr Trp Leu Ser Leu Leu Lys Cys Ile Val Ile His 85 90 Leu Asn Leu Phe Val Trp Gly Phe Cys Trp Phe Cys Phe Leu Gln Gly 105 110 Ala Asp Arg 115 <210> 4025 <211> 102 <212> PRT <213> Homo sapiens <400> 4025 Met 11e Ser Ala His Cys Asn Leu Arg Leu Ser Gly Ser Ser Asp Ser

10

Pro Ala Ser Gly Ser Arg Val Ala Gly Ile Ala Asp Lys Tyr Ala Glu

15

1

			20					25					30		
Ala	Cys	Phe	Gln	Gly	Gly	Glu	Arg	Asp	Ser	Phe	Ser	Ser	Ala	G1 y	His
		35					40					45			
Arg	Ala	Asn	Leu	Lys	Cys	Ser	Thr	Val	Val	Thr	Trp	Arg	Asp	Leu	Leu
	50					55					60				
Ser	Ser	His	Ser	Arg	Gly	Pro	Phe	Trp	Gly	Gln	Gly	Asp	Phe	Ser	Val
65					70					75					80
Arg	Pro	Val	Asp	Leu	lle	Glu	Met	Met	Ser	Cys	His	lle	Ala	Gln	Ala
				85					90					95	
Gly	Leu	Lys	Leu	Gln	Ala										
			100												
<210	)> 4(	026													
<21	1> 12	24													
<212	2> PI	RT													
<213	3> He	omo s	sapie	ens											
<400	)> 40	026													
Met	Gln	Ala	Thr	Cys	Leu	His	Val	Arg	Gly	Ser	Leu	Glu	Ser	Ser	His
1				5					10					15	
Arg	Ala	Thr	Pro	Trp	Leu	Gly	Ser	Ser	Pro	Ala	Leu	Leu	Pro	Pro	Ser
			20					25					30		
Pro	Ser	Pro	Ala	Ala	Ala	Leu	Ser	Met	Ala	Glu	Pro	Leu	Leu	Pro	Leu
		35					40					45			
Leu	Glu	Gly	Arg	Ser	Thr	Glu	G1n	He	Gln	Glu	Arg	Asn	His	Cys	Val
	50					55					60				
Phe	His	Arg	Arg	G]u	Ser	Thr	Leu	Asp	Phe	Leu	Cys	Asn	Leu	Leu	Leu
65					70					75					80
His	Phe	His	Arg	Asp	Ser	Tyr	Leu	Cys	Ser	Val	Thr	Gln	Leu	Lys	Pro
				85					90					95	
Ser	Lys	He	Arg	Leu	Pro	Cys	Leu	His	Lys	Gly	His	His	Asp	Gly	Asn
			100					105					110		
Gly	Cys	Thr	Ser	Pro	Cys	Val	Trp	Thr	Glu	Ala	Asp				

<210> 4027 <211> 141 <212> PRT <213> Homo sapiens <400> 4027 Met 11e 11e 11e Val Arg 11e Ala 11e 11e Lys Lys Ser Arg Asn Asn 10 1 15 Ser Cys Trp Cys Gly Cys Arg Lys Lys Arg Met His Val Tyr Cys Ser 25 Trp Glu Gln Leu Val Gln Pro Leu Trp Lys Ala Val Trp Arg Phe Leu 40 Lys Lys Leu Lys Ile Glu Leu Pro Phe Asn Pro Ala Ile Pro Leu Leu 50 55 60 Gly Val Tyr Pro Lys Glu Asp Lys Ser Phe Tyr Glu Asn Ala Cys Ser 70 75 Cys Val Phe Ile Ala Ala Leu Phe Thr Ile Ala Lys Ser Trp Ile Gln 85 90 Pro Lys Cys Leu Ser Ala Val Val Trp Ile Lys Arg Met Trp Cys lle 100 105 His Thr Glu Ile Leu Cys Ser His Lys Asn Met Lys Leu Leu Ser Phe 120 Ala Ala Thr Trp Met Lys Pro Glu Gly His Tyr Pro Lys 130 135 140 <210> 4028

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4028

Met Arg Tyr Gly Pro Gly Lys Glu Ala Ser Pro Arg Pro Leu Gln Ala

1 5 10 15

Pro Arg Lys Val Ser Ile Glu Gly Arg Glu Leu Gly Lys Leu Ser Gln

20 25 30 Gln Gly Trp Lys Glu Val Gly Asn Pro Phe Ser Gly Ser Leu Pro Val 40 45 Lys Leu Leu Ser Ser Gly Arg Ser Cys Pro Arg Tyr Arg Met Val Ser 50 55 60 Ser Val Cys Gln Ser Ser Thr Gln Asn Leu Gly Pro Cys Gln Ser Cys 70 75 Thr Lys Asp His Thr Val Leu Ser Ser Tyr Ser Val Val Val Phe Val 90 Thr Ile His Tyr Leu Ile Ile Phe Lys Tyr Thr Ser Cys Phe Ile Asp 100 105 110 Phe

<210> 4029

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4029

Met Gln Ile lle Arg His Ser Glu Gln Thr Leu Lys Thr Ala Leu Ile 1 5 10 15

Ser Lys Asn Pro Val Leu Val Ser Gln Tyr Glu Lys Leu Asp Ala Gly
20 25 30

Glu Gln Arg Leu Met Asn Glu Ala Phe Gln Pro Ala Ser Asp Leu Phe 35 40 45

Gly Pro 11e Thr Leu His Ser Pro Ser Asp Trp 11e Thr Ser His Pro 50 55 60

Glu Ala Pro Gln Asp Phe Glu Gln Phe Phe Ser Asp Pro Tyr Arg Lys
65 70 75 80

Thr Pro Ser Pro Asn Lys Arg Ser 11e Tyr 11e Gln Ser 11e Gly Ser 85 90 95

Leu Gly Asn Thr Arg lle lle Ser Glu Glu Tyr lle Lys Trp Leu Thr 100 105 110

Gly Tyr Cys Lys Ala Tyr Phe Tyr Gly Leu Arg Val Lys Leu Leu Glu

		115					120					125			
Pro	Val	Pro	Val	Ser	Val	Thr	Arg	Cys	Ser	Phe	Arg	Val	Asn	Glu	Asn
	130					135					140				
Thr	His	Asn	Leu	Gln	lle	His	Ala	Gly	Asp	He	Leu	Lys	Phe	Leu	Lys
145					150					155					160
Lys	Lys	Lys	Pro	Glu	Asp	Ala	Phe	Cys	Val	Val	Gly	Ile	Thr	Met	He
				165					170					175	
Asp	Leu	Tyr	Pro	Arg	Asp	Ser	Trp	Asn	Phe	Val	Phe	Gly	Gln	Ala	Ser
			180					185					190		
Leu	Thr	Asp	Gly	Val	Gly	Ile	Phe	Ser	Phe	Ala	Arg	Tyr	Gly	Ser	Asp
		195					200					205			
Phe	Tyr	Ser	Met	His	Tyr	Lys	Gly	Lys	Va]	Lys	Lys	Leu	Lys	Lys	Thr
	210					215					220				
Ser	Ser	Ser	Asp	Tyr	Ser	Пе	Phe	Asp	Asn	Tyr	Tyr	He	Pro	Glu	He
225					230					235					240
Thr	Ser	Val	Leu	Leu	Leu	Arg	Ser	Cys	Lys	Thr	Leu	Thr	His	Glu	He
				245					250					255	
G1 y	His	lle	Phe	Gly	Leu	Arg	His	Cys	Gln	Trp	Leu	Ala	Cys	Leu	Met
			260					265					270		
Gln	Gly	Ser	Asn	His	Leu	Glu	Glu	Ala	Asp	Arg	Arg	Pro	Leu	Asn	Leu
		275					280					285			
Cys		lle	Cys	Leu	His		Leu	Gln	Cys	Ala		Gly	Phe	Ser	He
	290					295					300				
	Glu	Arg	Tyr	Lys		Leu	Val	Arg	Trp		Asp	Asp	Glu	Ser	
305					310					315					320
Asp	Thr	Pro	Gly	Ala	Thr	Pro	Glu	His		His	Glu	Asp	Asn		Asn
		_		325			ь.		330		-			335	
Leu	Pro	Lys		Va]	Glu	Ala	Phe		Glu	Trp	Lys	Glu		He	ile
		,	340			0.1	,	345					350		
Lys	Cys		Ala	Val	Leu	61n									
		355					360								

<210> 4030

<211> 209

<212> PRT

## $\langle 213 \rangle$ Homo sapiens

<400	)> 40	030													
Met	Leu	Gly	Thr	Asp	Arg	Cys	Val	Val	Glu	Glu	Trp	Leu	Ser	Glu	Pho
1				5					10					15	
Lys	Ala	Leu	Pro	Asp	Thr	Gln	He	Thr	Ser	Tyr	Ala	Ala	Thr	Leu	His
			20					25					30		
Arg	Lys	Lys	Thr	Leu	Val	Pro	Ala	Leu	Tyr	Lys	Val	lle	Gln	Asp	Sea
		35					40					45			
Asn	Asn	Glu	Leu	Leu	Glu	Pro	Va1	Cys	His	Gln	Leu	Phe	Glu	Leu	Ty
	50					55					60				
Arg	Ser	Ser	Glu	Val	Arg	Leu	Lys	Arg	Phe	Thr	Leu	Gln	Phe	Leu	Pro
65					70					75					80
G] u	Leu	Met	Trp	Val	Tyr	Leu	Arg	Leu	Thr	Val	Ser	Arg	Asp	Arg	Gli
				.85					90					95	
Ser	Asn	Gly	Cys	Ile	Glu	Ala	Leu	Leu	Leu	Gly	He	Tyr	Asn	Leu	Gli
			100					105					110		
Ile	Ala	Asp	Lys	Asp	Gly	Asn	Asn	Lys	Va1	Leu	Ser	Phe	Thr	Ile	Pro
		115					120					125			
Ser	Leu	Ser	Lys	Pro	Ser	He	Tyr	His	Glu	Pro	Ser	Thr	lle	Gly	Se.
	130					135					140				
Met	Ala	Leu	Thr	Glu	Gly	Ala	Leu	Cys	Gln	His	Asp	Leu	He	Arg	Va
145					150					155					16
Val	Tyr	Ser	Asp	Leu	His	Pro	Gln	Arg	Glu	Thr	Phe	Thr	Ala	Gln	Ası
				165					170					175	
Arg	Phe	Glu	Val	Leu	Ser	Phe	Leu	Met	Leu	Cys	Tyr	Asn	Ser	Ala	11
			180					185					190		
Val	Tyr	Met	Pro	Ala	Ser	Ser	Tyr	Gln	Ser	Leu	Cys	Arg	Met	Gly	Se
		105					200					205			

<210> 4031

Arg

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4031

Met Leu Glu Pro Ser Ala Lys Cys Pro Arg Gln Glu Gly Lys Tyr Pro 1 5 10 15

His Arg Gly Arg Pro Gly Asp Pro Asp Phe Arg Ala Ala Gly Glu Glu 20 25 30

Gly Arg Gly Arg Trp Gly Ala Leu Gln Phe Arg Ser Thr Gly Asn Pro 35 40 45

Glu Lys Ser Ser Pro Leu Arg Gly Leu Pro Ser Pro Ala Pro Ser Leu 50 55 60

Pro His Arg Ala Leu Gly Ala Ala Ala Gly Arg Gly Asp Arg Arg Gly
65 70 75 80

Arg Glu Asp Arg Glu Ala Lys Glu Leu Gly Trp Gly Val Arg Val Trp 85 90 95

Trp Arg Gly Trp Asp Asp Thr Gly Val Leu Arg Gly Gly Ala Gly Arg 100 105 110

Lys Ala Arg Arg Pro Gly Gln Val Gly Val Arg Arg Ser Gly Arg Gln
115 120 125

Glu Arg Gly Cys Gly Arg Gly Arg Leu Gly Phe 130 135

<210> 4032

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4032

Met Arg Pro Leu Ala Ser Leu Ser Gly Gly Gln Lys Ser Arg Val Ala

1 5 10 15

Phe Ala Gln Met Thr Met Pro Cys Pro Asn Phe Tyr lle Leu Asp Glu 20 25 30

Pro Thr Asn His Leu Asp Met Glu Thr 11e Glu Ala Leu Gly Arg Ala 35 40 45

Leu Asn Asn Phe Arg Gly Gly Val IIe Leu Val Ser His Asp Glu Arg

| Family | F

<210> 4033

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4033

Met Ala Tyr Gly Phe Arg Asn Ile Gln Asn Leu Val Gln Arg Leu Lys

1 5 10 15

Arg Gly Arg Cys Pro Tyr His Tyr Val Glu Val Met Ala Cys Pro Ser 20 25 30

Gly Cys Leu Asn Gly Gly Gly Gln Leu Gln Ala Pro Asp Arg Pro Ser 35 40 45

Arg Glu Leu Leu Gln His Val Glu Arg Leu Tyr Gly Met Val Arg Ala 50 55 60

Glu Ala Pro Glu Asp Ala Pro Gly Val Gln Glu Leu Tyr Thr His Trp
65 70 75 80

Leu Gln Gly Thr Asp Ser Glu Cys Ala Gly Arg Leu Leu His Thr Gln
85 90 95

Tyr His Ala Val Glu Lys Ala Ser Thr Gly Leu Gly 11e Arg Trp 100 105 110

<210> 4034

<211> 100

<212> PRT

<213> Homo sapiens

	)> 4(	034													
Met	Pro	Leu	Gly	Ser	Gly	His	Arg	Trp	Leu	His	Ser	Pro	Leu	Ala	Pro
1				5					10					15	
Cys	Arg	Cys	Pro	Cys	Thr	Leu	Pro	Pro	Ser	Arg	Pro	Thr	Arg	Asp	Ala
			20					25					30		
Ala	Leu	Pro	Trp	Pro	Ala	Ala	Val	Leu	Cys	Cys	Gly	Phe	Leu	Ala	Val
		35					40					45			
Ala	Gly	Thr	Gly	Pro	Pro	Pro	Pro	Val	Pro	Ser	G1 y	His	Arg	Leu	Gln
	50														
C1	50		61	C		55	61	T	C1	C	60	61		т	D
65	Arg	Leu	Gly	Cys	Arg	Glu	Gly	lyr	GIN	5er 75	irp	Glu	Asn	Trp	
	Cve	Ara	Pho	Thr		Gln	Clv	Cly	Sor		Ara	Clu	Val	Sor	80 61 v
110	Cys	Mg	1116	85	01u	OIII	Oly	Oly	90	1115	AI g	Olu	vaj	95	O1 y
Phe	Phe	Leu	Arg	00					00						
			100												
<210	)> 40	135													
	)/ 4(	,00													
	1> 28														
<211		32													
<211 <212	1> 28 2> PI	32 RT	sapie	ens											
<211 <212 <213	1> 28 2> PI 3> Ho	32 RT omo s	sapie	ens											
<211 <212 <213 <400	1> 28 2> Pf 3> Ho 3> 40	32 RT omo s			S		Т	Curr	A	Ç	D	Cla	<b>T</b>		DL
<211 <212 <213 <400 Met	1> 28 2> Pf 3> Ho 3> 40	32 RT omo s		Cys	Ser	Ser	Trp	Cys		Ser	Pro	Gln	Trp		Phe
<211 <212 <213 <400 Met	1> 28 2> PF 3> Ho 0> 40 Ala	32 RT omo s O35 Leu	Ser	Cys 5					10					15	
<211 <212 <213 <400 Met	1> 28 2> PF 3> Ho 0> 40 Ala	32 RT omo s O35 Leu	Ser Lys	Cys				His	10				Leu	15	
<211 <212 <213 <400 Met 1 Glu	1> 28 2> Pt 3> Ho 0> 40 Ala	32 RT omo s O35 Leu Ser	Ser Lys 20	Cys 5 Ser	His	Ala	Asn	His 25	10 Arg	Pro	He	Cys	Leu 30	15 Ser	Pro
<211 <212 <213 <400 Met 1 Glu	1> 28 2> Pt 3> Ho 0> 40 Ala	32 RT omo s O35 Leu Ser	Ser Lys 20	Cys 5	His	Ala	Asn	His 25	10 Arg	Pro	He	Cys	Leu 30	15 Ser	Pro
<211 <212 <213 <400 Met 1 Glu	1> 28 2> PI 3> Ho 0> 40 Ala Ile	32 RT omo s D35 Leu Ser Trp 35	Ser Lys 20 Pro	Cys 5 Ser	His Ser	Ala Ala	Asn Ser 40	His 25 Ala	10 Arg Thr	Pro Ser	lle Thr	Cys Val 45	Leu 30 Cys	15 Ser Ser	Pro Ser
<211 <212 <213 <400 Met 1 Glu	1> 28 2> PI 3> Ho 0> 40 Ala Ile	32 RT omo s D35 Leu Ser Trp 35	Ser Lys 20 Pro	Cys 5 Ser Gly	His Ser	Ala Ala	Asn Ser 40	His 25 Ala	10 Arg Thr	Pro Ser	lle Thr	Cys Val 45	Leu 30 Cys	15 Ser Ser	Pro Ser
<211 <212 <213 <400 Met 1 Glu Arg	1> 28 2> PI 3> Ha 3> 40 Ala Ala Glu 50	32 RT Dmo s D35 Leu Ser Trp 35 Ser	Ser Lys 20 Pro	Cys 5 Ser Gly	His Ser Pro	Ala Ala Arg 55	Asn Ser 40 Gly	His 25 Ala Pro	10 Arg Thr Pro	Pro Ser Ala	Thr Val	Cys Val 45 Ser	Leu 30 Cys Leu	15 Ser Ser Leu	Pro Ser Leu

Val Leu Pro Ser Pro Val Ala His Pro Pro Cys Pro Cys Leu Pro Pro

Asp Met Pro Leu Glu Leu Pro Gly Pro Cys Cys Pro His Cys Leu Cys Asp Ser Ala Pro Pro Ser Leu Pro Cys Pro Thr Leu Val Gln Gly Ala Ser Arg Pro Ile Leu Ile Leu Arg Ala Phe Pro Gly Pro Cys His Ser Val Pro Cys His Asp Leu Lys Leu Gln Val Gly Ala Ser Pro Phe Arg His Gly Cys Pro Pro Ser Val Arg Cys Pro Ser Arg Leu Ile Ala Gly Val Pro Gly Cys Ser Val Leu Ser Trp Ser Leu Gly His Ser Leu Ser Gly Ile Asp Ser Arg Val Gly Ala Thr Pro Gly Leu Gly His Ser Leu Ser Trp Val Arg Ala Pro Pro Gly Leu Gly His Ser Leu Ser Gly Val Gly Ala Thr Pro Gly Leu Gly His Leu Leu Ser Gly Val Gly Ala Ser Pro Gly Glu Asp Thr Glu His Ala Ala Ala Leu Thr Pro Cys Gly Val Pro Pro Val Pro Gly Cys Arg Ser His Ser Gln Pro Leu Ser His Leu Val Ser Ser Ser Arg Cys Cys Gly Pro 

<210> 4036

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4036

Met Asn Lys Val Asn Leu Leu Val Ile Phe Lys Leu Leu Val Leu Gly

1 5 10 15

Val Cys Asn Lys Val Lys Val Tyr Ile Leu Val Leu Pro Lys Ser His

20 25 30 Leu Lys Tyr Leu Gln Ile Phe Asn Leu Cys Val Val Tyr Pro Ile Ile 40 45 Ala Pro Ile Ser Gly Lys Ser Val Phe Leu Lys Phe Lys Lys Glu Glu 50 60 55 Lys Gln Gln Ser Asp Tyr Phe Ala Val Glu Lys Lys Ser Val Ser Phe 70 75 Met Gly Tyr Thr Phe Ile Phe Leu Cys Ser Val Lys Leu Ala Thr Leu 90 Trp Gly Thr Trp Val Leu Phe Leu Leu Val His Asp Val Cys Phe Arg 105 Thr Tyr Leu Leu Thr Phe Gln Arg Thr Ser Tyr Ile Thr Cys Leu Thr 115 120 125 Tyr

<210> 4037

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4037

Met Gly Asn Leu Cys Ser Trp Thr Leu Lys Ile Leu Glu Ser Leu His

1 5 10 15

Ile Arg Asn Val Lys Met Ala Trp Pro Ser Lys Gly Phe Ser Asn Ser 20 25 30

Ser Cys Leu Gln Ala Val Pro Gln Thr Glu His Tyr Asn Leu Arg Ser 35 40 45

Phe Leu Leu Ala Tyr Asn Ser Asp Ser Gly Ser Pro Lys Gln Ser Ile
50 55 60

Trp Leu Ala 11e Ala Arg Leu Val Asn Gly 11e Phe Tyr Leu Leu Lys 65 70 75 80

Thr Ala Lys Tyr Cys Thr Arg Gly Arg Ser Trp Ala Ala Gly Arg Glu 85 90 95

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105
Thr Val Arg Arg Cys
        115
<210> 4038
<211> 172
<212> PRT
<213> Homo sapiens
<400> 4038
Met Pro Gln 11e Pro Arg Asp Asn Lys Ala Ala Ala Leu Leu Met Leu
  1
                  5
                                                          15
Thr Lys Asn Val Asp Phe Val Lys Asp Ala His Glu Glu Met Glu Gln
             20
                                 25
Ala Val Glu Glu Cys Asp Pro Tyr Ser Gly Leu Leu Asn Asp Thr Glu
                             40
                                                  45
Glu Asn Asn Ser Asp Asn His Asn His Glu Asp Asp Val Leu Gly Phe
     50
                         55
                                              60
Pro Ser Asn Gln Asp Leu Tyr Trp Ser Glu Asp Asp Gln Glu Leu Ile
                     70
                                          75
lle Pro Cys Leu Ala Leu Val Arg Ala Ser Lys Ala Cys Leu Lys Lys
                                     90
lle Arg Met Leu Val Ala Glu Asn Gly Lys Lys Asp Gln Val Ala Gln
            100
                                 105
Leu Asp Asp Ile Val Asp Ile Ser Asp Glu Ile Ser Pro Ser Val Asp
                            120
                                                 125
Asp Leu Ala Leu Ser Ile Tyr Pro Pro Met Cys His Leu Thr Val Arg
    130
                        135
                                             140
lle Asn Val Ser Thr Gly Phe Glu Gly 11e Ala Thr Glu Gln Met Gly
                    150
                                                             160
Arg Ile Ser Leu lle Thr Ser Ile Ser Cys Lys Leu
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170

165

Gln Gln Met Glu Arg Ser Leu Leu Ile Val Leu Ile Ser Trp Lys Thr

<210> 4039 <211> 164 <212> PRT <213> Homo sapiens

<400> 4039

Met Met Lys Ile Pro Lys Gly Met Ala Thr Lys Ala Lys Ile Asp Lys

1 5 10 15

Trp Asp Leu Ile Lys Leu Lys Ser Phe Cys Thr Ala Lys Glu Thr Thr
20 25 30

Ile Arg Val Asn Arg Gln Pro Thr Lys Trp Glu Lys Asn Phe Glu Ile 35 40 45

Tyr Leu Ser Asp Lys Gly Leu Ile Ser Arg Ile Tyr Lys Glu Leu Lys
50 55 60

Gln Ile Tyr Lys Lys Lys Thr Asn Asn Ser Ile Arg Asn Trp Ala Lys
65 70 75 80

Asp Met Asn Arg His Ile Ser Lys Glu Asp Ile Tyr Ala Ala Thr Lys

85 90 95

His Met Arg Lys Ser Ser Thr Ser Leu Val Ile Arg Glu Met Gln Ile 100 105 110

Lys Thr Thr Met Arg His His Leu Thr Ser Val Lys Met Ala Ile Ile
115 120 125

Lys Lys Ser Gly Asn Asn Arg Phe Trp Arg Glu Cys Gly Glu 11e Glu 130 135 140

Met Val Leu His Cys Trp Trp Glu Cys Lys Leu Val Gln Pro Leu Trp 145 150 155 160

Lys Thr Val Trp

<210> 4040

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4040

Met Pro Gln Pro Pro Ser Trp Asp Tyr Arg Tyr Ala Pro Pro Arg Leu 1 Thr Asn Ser Asn Phe Cys Ile Phe Ser Arg Asp Arg Phe His His Val 25 30. Gly Gln Ala Gly Leu Glu Leu Pro Thr Ser Gly Asp Pro Pro Thr Leu 40 Ala Ser Gln Ser Ala Gly 11e Thr Ser Val Ser His Cys Thr Pro Pro 55 60 Thr Ile Ile Phe Ser Leu Ile Ser Phe Asn Ser Phe Cys Leu Tyr Asp 70 75 65 80 Leu Leu Phe Ser Phe Leu Ser Ser Ile Leu Val Asn Ile Phe Phe Ile 90 Val Ser Thr Phe Ile Cys Pro Leu Phe Ser Phe Ile Phe Thr Ser Val 100 105 110 Met Val Ile Leu Pro Val Phe Trp Arg Trp Cys Leu Asn Met Phe Pro 115 120 125 Arg Leu Asp Leu Asn Ala 130

<210> 4041

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4041

Met Asp Leu Asn Tyr Thr Leu Lys Gln Met Asp Leu Thr Asp Ile Tyr

1 5 10 15

Arg Thr Phe His Pro Thr Thr Ala Glu Tyr Thr Leu Tyr Ser Thr Val 20 25 30

His Gly Thr Phe Ser Lys Ile Asp His Met lle Gly His Lys Met Ser 35 40 45

Phe Asn Lys Phe Lys Lys Thr Glu 11e I1e Ser Ser Thr Leu Ser Asp 50 55 60

His Ser Glu Ile Lys Leu Glu Ile Asn Ser Arg Arg Asn Leu Gln Asn 65 70 75 80

His Ala Asn Thr Arg Lys Leu Asn Asn Leu Leu Leu Asn Glu His Trp

85

90

95

Val Lys Asn Glu lle Lys Met Glu lle

100

105

<210> 4042

<211> 506

<212> PRT

<213> Homo sapiens

<400> 4042

Met Ile Met Ala Ser Phe Phe Leu Leu Arg Arg Lys Lys Ser Lys Ser I 5 10 15

Arg Ser Arg Ser His Glu Arg Lys Arg Ser Lys Ser Lys Glu Arg Lys
20 25 30

Arg Ser Arg Asp Arg Glu Arg Lys Lys Ser Lys Ser Arg Glu Arg Lys

40

45

Arg Ser Arg Ser Lys Glu Arg Arg Arg Ser Arg Ser Arg Ser Arg Asp 50 55 60

Arg Arg Phe Arg Gly Arg Tyr Arg Ser Pro Tyr Ser Gly Pro Lys Phe
65 70 75 80

Asn Ser Ala Ile Arg Gly Lys Ile Gly Leu Pro His Ser Ile Lys Leu

85 90 95

Ser Arg Arg Ser Arg Ser Lys Ser Pro Phe Arg Lys Asp Lys Ser
100 105 110

Pro Val Arg Glu Pro Ile Asp Asn Leu Thr Pro Glu Glu Arg Asp Ala 115 120 125

Arg Thr Val Phe Cys Met Gln Leu Ala Ala Arg Ile Arg Pro Arg Asp 130 135 140

Leu Glu Glu Phe Phe Ser Thr Val Gly Lys Val Arg Asp Val Arg Met 145 150 155 160

lle Ser Asp Arg Asn Ser Arg Arg Ser Lys Gly lle Ala Tyr Val Glu 165 170 175

Phe Val Asp Val Ser Ser Val Pro Leu Ala Ile Gly Leu Thr Gly Gln 180 185 190

Arg	Val	Leu	Gly	Val	Pro	Ile	He	Val	Gln	Ala	Ser	Gln	Ala	Glu	Lys
		195					200					205			
Asn	Arg	Ala	Ala	Ala	Met	Ala	Asn	Asn	Leu	Gln	Lys	Gly	Ser	Ala	Gly
	210					215					220				
Pro	Met	Arg	Leu	Tyr	Val	Gly	Ser	Leu	His	Phe	Asn	He	Thr	Glu	Asp
225					230					235					240
Met	Leu	Arg	Gly	Ile	Phe	Glu	Pro	Phe	Gly	Arg	Ile	Glu	Ser	He	Gln
				245					250					255	
Leu	Met	Met	Asp	Ser	Glu	Thr	Gly	Arg	Ser	Lys	Gly	Tyr	Gly	Phe	He
			260					265					270		
Thr	Phe	Ser	Asp	Ser	Glu	Cys	Ala	Lys	Lys	Ala	Leu	Glu	Gln	Leu	Asn
		275					280					285			
Gly		Glu	Leu	Ala	G1 y		Pro	Met	Lys	Val	Gly	His	Val	Thr	G]u
	290				_	295		_			300	_			
	Thr	Asp	Ala	Ser		Ala	Ser	Ser	Phe		Asp	Ser	Asp	GIu	
305		m.	0.1	7.1	310	,	0.1	T)	TP1	315			0.1		320
Glu	Arg	Thr	Gly		Asp	Leu	Gly	lhr		Gly	Arg	Leu	Gln		Met
4.1			4.1	325	61	TI	C1		330	T 1	n	D	4.1	335	C1
Ala	Arg	Leu		GIU	бту	Inr	Gly		GIN	116	Pro	Pro		АТа	GIN
C15	Alo	Lou	340	Mot	Son	Cly	Sor	345	Ala	Dho	C1v	Ala	350	A10	Clu
GIII	мта	355	0111	Met	261	01 y	Ser 360	Leu	MIA	ine	Gly	365	vai	МІА	Olu
Pho	Sor		Val	Tla	Asn	Lau	Gln	Thr	Ara	Lau	Sor		Gln	Thr	Glu
1116	370	THE	\a1	110	пэр	375	OIII	1113	nig	Leu	380	OIII	OIII	1 111	Giu
Ala		Ala	Leu	Ala	Ala		Ala	Ser	Val	Gln		Leu	Ala	Thr	Gln
385			204		390		,,,,			395		500	,,,,		400
	Phe	Gln	Leu	Ser		Met	Phe	Asn	Pro		Thr	Glu	Glu	Glu	
•				405					410					415	
Gly	Trp	Asp	Thr	Glu	Ile	Lys	Asp	Asp	Val	He	Glu	Glu	Cys	Asn	Lys
			420					425					430		
His	Gly	Gly	Val	lle	His	lle	Tyr	Val	Asp	Lys	Asn	Ser	Ala	Gln	Gly
		435					440					445			
Asn	Val	Tyr	Val	Lys	Cys	Pro	Ser	He	Ala	Ala	Ala	11e	Ala	Ala	Val
	450					455					460				
Asn	Ala	Leu	His	Gly	Arg	Trp	Phe	Ala	Gly	Lys	Met	He	Thr	Ala	Ala
465					470					475					480

Tyr Val Pro Leu Pro Thr Tyr His Asn Leu Phe Pro Asp Ser Met Thr \$485\$ \$490\$ Ala Thr Gln Leu Leu Val Pro Ser Arg Arg

500 505

<210> 4043

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4043

Met Trp Phe Leu Arg Arg Lys His Ala Gly Thr Ala Ile Pro Ser Arg

1 5 10 15

Leu Glu Glu His Thr Asp Ala Gly Val Ser Glu Pro Asp Leu Gly Ser
20 25 30

Ser Leu Thr Ser Ala Ala His His Arg Gln Ala Cys Lys Ser Tyr Phe 35 40 45

Ser Ser Leu Ser Leu His Phe Phe His Ile Glu Trp Gly Ser Val Leu 50 55 60

Pro Ala Met Arg Val Val Val Asn Ile Gln Arg Lys Leu Ser Arg Ser 65 70 75 80

Thr 11e Thr Leu Glu Asn Cys Leu Ala Val Leu Thr Asp Ala Glu His
85 90 95

Val Gly Thr Ser Gly Pro Ser Ser Pro Thr Ala Gly Asp Thr Leu Ser 100 105 110

Arg Tyr Val Pro Thr Cys Thr Arg Lys Tyr Leu 115 120

<210> 4044

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4044

Met Asp Ser Ser Ser Gly Val Ser Asp Trp Arg Asp Ala Ser Gly Arg Gly Ser Phe Pro Gly Ala Pro Ala Phe Val Met Val Asp Ala Pro Leu Arg Cys His Leu Leu Arg Arg Thr Ser Cys Ser Val Leu Asp Arg Trp Ala Pro Val Gly Pro Pro Arg Leu Glu Met Asn Leu Lys Gly Thr Pro Cys Leu Gly Asp Leu Ser Gln Ala Gly Gln Arg Asn Asn Gln Thr Thr Val Ser Ala Trp Arg Leu Gln Ser Phe Ala Gln Gly Pro Ser Glu Gly Gly Leu Gly Lys Thr Ser Trp Gly Leu Gly Gln Leu Ser Lys Met Asp Lys Glu Ser Asn His Leu Cys Leu His Ile Phe Phe Ile Ser Ser Ser Gln Gln Pro <210> 4045 <211> 506 <212> PRT <213> Homo sapiens <400> 4045 Met Pro Ser Ala Leu Ala lle Phe Thr Cys Arg Pro Asn Ser His Pro Phe Gln Glu Arg His Val Tyr Leu Asp Glu Pro Ile Lys Ile Gly Arg Ser Val Ala Arg Cys Arg Pro Ala Gln Asn Asn Ala Thr Phe Asp Cys Lys Val Leu Ser Arg Asn His Ala Leu Val Trp Phe Asp His Lys Thr

Gly Lys Phe Tyr Leu Gln Asp Thr Lys Ser Ser Asn Gly Thr Phe 11e

65					70					75					80
Asn	Ser	Gln	Arg	Leu	Ser	Arg	Gly	Ser	Glu	Glu	Ser	Pro	Pro	Cys	Glu
				85					90					95	
11e	Leu	Ser	Gly	Asp	He	He	Gln	Phe	Gly	Val	Asp	Val	Thr	Glu	Asn
			100					105					110		
Thr	Arg	Lys	Val	Thr	His	Gly	Cys	lle	Val	Ser	Thr	He	Lys	Leu	Phe
		115					120					125			
Leu		Asp	Gly	Met	Glu		Arg	Leu	Arg	Ser		Val	Ile	His	Ala
_	130	_				135					140		_	_	
	Leu	Pro	Ser	Pro		Asp	Lys	Val	Ala		Asn	Thr	Pro	Ser	
145	c	6.1	6.1	,	150	6.1	,	6	61	155		61	61		160
lyr	Ser	GIn	Glu		Phe	GIn	Leu	Ser		lyr	Leu	GIN	Glu		Leu
u; a	Λ	C1	C1.5	165 Mad	Lass	C1	C1.5	Luc	170	41.	Than	Lau	C1.5	175	1
nis	Mrg	Glu	180	мет	Leu	Glu	GIII	185	Leu	Ala	1111	Leu	61n 190	A1.B	Leu
الم أ	Ala	ماآ		Gln	Glu	Ala	Sor		Thr	Sor	Trn	Gln	Ala	ا ما	ماآ
Leu	MIA	195	1 111	UIII	Olu	MIA	200	nsp	1111	261	пр	205	MIG	Leu	116
Asp	Glu		Arg	Leu	Leu	Ser		Leu	Glu	Val	Met		Asn	G1n	Leu
•	210	•	Ü			215	Ü				220				
Gln	Ala	Cys	Ser	Lys	Asn	Gln	Thr	Glu	Asp	Ser	Leu	Arg	Lys	Glu	Leu
225					230					235					240
11e	Ala	Leu	Gln	Glu	Asp	Lys	His	Asn	Tyr	Glu	Thr	Thr	Ala	Lys	Glu
				245					250					255	
Ser	Leu	Arg	Arg	Val	Leu	Gln	Glu	Lys	He	Glu	Val	Val	Arg	Lys	Leu
			260					265					270		
Ser	Glu	Val	Glu	Arg	Ser	Leu	Ser	Asn	Thr	Glu	Asp	Glu	Cys	Thr	His
		275					280					285			
Leu	Lys	Glu	Met	Asn	Glu	Arg	Thr	Gln	Glu	Glu	Leu	Arg	Glu	Leu	Ala
	290					295					300				
Asn	Lys	Tyr	Asn	Gly		Val	Asn	Glu	He		Asp	Leu	Ser	Asp	
305					310					315					320
Leu	Lys	Va]	Ala		Gly	Lys	Gln	G1u		lle	Gln	Gln	Lys		Gln
	0.7		_	325					330					335	
Ala	Glu	Lys		Glu	Leu	GIn	His		He	Asp	Glu	Met	Glu	Glu	Lys
			340					345					350		

Glu Gln Glu Leu Gln Ala Lys 11e Glu Ala Leu Gln Ala Asp Asn Asp 360 Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Val Arg Leu Glu His Leu 370 375 Gln Glu Lys Thr Leu Lys Glu Cys Ser Ser Leu Gly 11e Gln Val Asp 390 395 400 Asp Phe Leu Pro Lys Ile Asn Gly Ser Thr Glu Lys Glu Lys Leu Ile 405 410 Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu Ser Lys 420 425 430 Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr Leu Ser 440 445 Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln Met Asp 450 455 460 Glu Gln Asp Leu Asn Glu Pro Leu Ala Lys Val Ser Leu Leu Lys Gly 470 475 Thr Leu Thr Cys Phe Tyr Asp Ile Val Asn Gln Gly Ile Lys Ser Pro 485 490 495 Phe Ala Ile Lys Ser Val Leu Asp Ile Met 500 505

<210> 4046

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4046

Met Pro Pro Thr Ser Gln Leu Pro Thr Leu Asp Thr Ala Leu Gln Thr l 1 5 5 10 15 15 Arg His Pro Trp Ala Leu Ser 110 15 15 Arg His Pro Trp Ala Leu Ser 110 15 15 15 Arg His Pro Leu Gln Gly Arg Val Thr Ala IIe Val Pro Lys Ala Ser Arg 30 30 Ala Pro Leu Gln Gly Arg Val Thr Ala IIe Val Pro Lys Ala Ser Cys 35 40 45 Leu His Gly Thr Pro Arg Cys Phe Leu Gln Arg Gly Val Pro Ser Trp 50 55 60

Ser Ser Pro Gln Thr Trp Ser Trp Pro Ala Pro Ser Gln Pro Phe Gln 70 75 Gln Gly Pro Arg Leu Met Thr Ala Pro Ala Pro His Pro Gly Ser Gly 90 Thr Arg Thr Ser Ser His His Pro Ser Pro Leu Arg Arg Ser Ser Leu 105 Ala Val Gln Val Pro Ile Ser Gly Glu Gly Met Trp Glu Gly Asp Arg 120 125 Glu Gly Leu Gly Ser Lys 130

<210> 4047

<211> 203

<212> PRT

<213> Homo sapiens

115

130

<400> 4047 Met Ile Ile Leu Ile Val Asn Ile Gly Ile Leu Asn Val Lys Cys Gln 5 10 Thr Asn Val Thr Tyr Ala Gly Ala Leu Ala Leu Leu Ile Arg Phe Trp 25 Phe Lys Phe Cys His Ser Ser Ser Trp Val Arg Gly Phe Ala Val Ser 35 40 45 Phe Phe Phe Trp Thr Leu Asp Pro Glu Pro Val Leu Ala Ser Gln Phe 55 Leu Ser Leu Tyr Pro Phe Pro Ser Val Ser Ser Ser Leu Phe Pro Leu 70 Ser Leu Phe Val Phe Leu Ile Ser Phe Cys Phe Ser Glu Tyr Leu His 85 90 95 Phe Tyr Leu Cys Val Ser Val Tyr Phe Ser Val Tyr Leu Ser Val Leu 105 Gln Ser Val Phe Leu Phe Leu Ala Leu Arg Gln Cys Leu Phe Leu Ser

120

135

Ser Leu Ser Cys Ser Ala Met Ala 11e Ser Thr Ala Leu Phe Leu Thr

125

 Leu Ile
 Phe Gly
 Leu Cys
 Val
 Ser
 Pro
 Ser
 His
 Phe Leu Ser
 His
 Ser
 Leu
 His
 Ser
 Leu
 Leu
 Cys
 Pro
 Gln
 Ser
 Leu
 Asn
 Leu
 Ser
 Leu
 Leu
 Cys
 Cys
 Val
 Leu
 Asn
 Leu
 Tyr
 Phe
 Cys
 Leu
 Leu
 His
 Ser
 His
 Ser
 Leu
 Asn
 Leu
 Asn
 Leu
 Tyr
 Phe
 Cys
 Leu
 Leu

<210> 4048

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4048

Met Leu Cys Cys Leu Asp 11e Ser Ser Thr Arg Tyr Pro Lys Ser Ser 1 5 10 15

Leu Ser Ser Ser Lys Phe His Arg Ser Leu Gly Gln Gly Gln Met Leu 20 25 30

Pro Val Cys Leu His Ser Lys Ser Asp Leu Tyr Ser Ser Gln Lys 35 40 45

Val Pro His Leu His Leu Arg Leu His Gln Pro Arg Leu His Cys Thr  $\overline{\phantom{a}50\phantom{a}}$ 

Tyr Tyr Gln Tyr Phe Gly Gln Gly His Ser Thr Ser Leu Tyr Glu
65 70 75 80

Val Pro Asn Phe Pro Thr Ser Pro Cys Leu Leu Leu Ser Pro Pro Asn
85 90 95

Cys Ser Asn Leu Cys Leu Leu Pro Ser Ser Lys Val Ala Ser Thr Tyr 100 105 110

Leu Gly 11e Phe Thr Ala Ala Pro His Ser Trp Tyr Gln Phe Thr Val 115 120 125

Leu Ile Cys Ser Arg Ala Ala Ile Arg Thr Asp Ser Gly Leu Gly Asn 130 135 140

Leu

<210> 4049 <211> 102 <212> PRT <213> Homo sapiens <400> 4049 Met Ala Thr Gly Val Cys Ser Asp Phe Ser Cys Val Glu Pro Ser Gly 5 10 15 Cys Ala Ala Trp Ala Gly Gly Met Leu Leu Ala Gly Gln Asp Val His 25 Gln Ala Gly Cys Gly Cys Thr Gly Leu Lys Gly Cys Phe Gly Arg Pro 35 40 45 Trp Cys Cys Arg Ala Ala Gly Arg Arg Val Leu Ala Arg Ser Gln Leu 55 Ser Leu Arg Phe Leu Leu Pro Leu Gly Val Cys Gly Cys Gly Gln Ile 70 75 Leu Arg Gly Ser Arg Pro Trp Glu Pro Thr Val Ser Gly Gly Trp Glu 85 90 95 Phe Leu Val Arg Gln Thr 100 <210> 4050 <211> 924 <212> PRT <213> Homo sapiens <400> 4050 Met Arg Ser Lys Asp Ile Glu Ala Ser Gly Phe Asn Gly Thr Ala Ala Phe Met Glu Val Arg Val Gln Ser Ile Val Val Glu Phe Ile Leu Thr

His Val Asp Gln Leu Phe Gly Gly Ala Ala Leu Ser Gly Gly Glu Val

45

40

Glu	Ser	Gly	Trp	Arg	Ser	Leu	Pro	Gly	Thr	Arg	Ala	Ser	G1 y	Ser	Pro
	50					55					60				
Glu	Asp	Leu	Met	Pro	Arg	Pro	Leu	Pro	Tyr	His	Leu	Pro	Ser	11e	Leu
65					70					75					80
Gln	Ala	Gly	Asp	Gly	Pro	Pro	Gln	Met	Arg	Pro	Tyr	His	Thr	He	11e
				85					90					95	
Glu	He	Ala	Glu	His	Lys	Arg	Lys	Gly	Ser	Leu	Lys	Val	Arg	Lys	Trp
			100					105					110		
Arg	Ser	Ile	Phe	Asn	Leu	Gly	Arg	Ser	Gly	His	Glu	Thr	Lys	Arg	Lys
		115					120					125			
Leu	Pro	Arg	Gly	Ala	Glu	Asp	Arg	Glu	Asp	Lys	Ser	Asn	Lys	Gly	Thr
	130					135					140				
Leu	Arg	Pro	Ala	Lys	Ser	Met	Asp	Ser	Leu	Ser	Ala	Ala	Ala	Gly	Ala
145					150					155					160
Ser	Asp	Glu	Pro	Glu	Gly	Leu	Val	Gly	Pro	Ser	Ser	Pro	Arg	Pro	Ser
				165					170					175	
Pro	Leu	Leu	Pro	Glu	Ser	Leu	Glu	Asn	Asp	Ser	He	Glu	Ala	Ala	Glu
			180					185					190		
Gly	Glu	Gln	Glu	Pro	Glu	Ala	Glu	Ala	Leu	Gly	Gly	Thr	Asn	Ser	Glu
		195					200					205			
Pro	Gly	Thr	Pro	Arg	Ala	Gly	Arg	Ser	Ala	He	Arg	Ala	Gly	Gly	Ser
	210					215					220				
Ser	Arg	Ala	Glu	Arg	Cys	Ala	Gly	Va]	His	He	Ser	Asp	Pro	Tyr	Asn
225					230					235					240
Val	Asn	Leu	Pro	Leu	His	lle	Thr	Ser	He	Leu	Ser	Val	Pro	Pro	Asn
				245					250					255	
He	lle	Ser	Asn	Val	Ser	Leu	Ala	Arg	Leu	Thr	Arg	Gly	Leu	Glu	Cys
			260					265					270		
Pro	Ala	Leu	Gln	His	Arg	Pro	Ser	Pro	Ala	Ser	Ser	Pro	Gly	Pro	Gly
		275					280					285			
Pro	Gly	Leu	Gly	Pro	Gly	Pro	Pro	Asp	Glu	Lys	Leu	Glu	Ala	Ser	Pro
	290					295					300				
Ala	Ser	Ser	Pro	Leu	Ala	Asp	Ser	Gly	Pro	Asp	Asp	Leu	Ala	Pro	Ala
305					310					315					320
Leu	Glu	Asp	Ser	Leu	Ser	Gln	Glu	Val	Gln	Asp	Ser	Phe	Ser	Phe	Leu
				325					330					335	

Glu	Asp	Ser	Ser	Ser	Ser	Glu	Pro	${\tt Glu}$	Trp	Val	Gly	Ala	Glu	Asp	Gly
			340					345					350		
Glu	Val	Ala	Gln	Ala	Glu	Ala	Ala	Gly	Ala	Ala	Phe	Ser	Pro	Gly	Glu
		355					360					365			
Asp	Asp	Pro	Gly	Met	Gly	Tyr	Leu	Glu	Glu	Leu	Leu	Gly	Val	Gly	Pro
	370					375					380				
Gln	Val	Glu	Glu	Phe	Ser	Val	Glu	Pro	Pro	Leu	Asp	Asp	Leu	Ser	Leu
385					390					395					400
Asp	Glu	Ala	Gln	Phe	Val	Leu	Ala	Pro	Ser	Cys	Cys	Ser	Leu	Asp	Ser
				405					410					415	
Ala	Gly	Pro	Arg	Pro	Glu	Val	Glu	Glu	Glu	Asn	Gly	Glu	Glu	Val	Phe
			420					425					430		
Leu	Ser		Tyr	Asp	Asp	Leu	Ser	Pro	Leu	Leu	Gly	Pro	Lys	Pro	Pro
		435					440					445			
He		Lys	Gly	Ser	Gly	Ser	Leu	Glu	Gly	Glu		Ala	Gly	Cys	Gly
	450					455					460		_		
	Gln	Ala	Leu	Gly		Gly	Gly	Glu	Glu		Ala	Cys	Trp	Glu	
465	0.7				470			0.1	2.1	475			~ .		480
Gly	Glu	Asp	Lys		Ala	Glu	Pro	Gly		Arg	Leu	Asp	He		Glu
C1	41-	C1	C1	485	D	C1	ть	1	490	C1	41.	C1		495	C
GIU	мта	GIU		ser	Pro	Glu	Inr		vai	GIU	ATA	GTA		АТа	Ser
Cl.v	Aan	Ana	500	Clu	Ala	C1.,	Clu	505	Cla	C1	Tha	Luc	510	Amer	Lau
Giu		515	бту	Gju	мта	G1 y	520	Se1	GIII	01 u	1111	525	vai	MI B	Leu
Ara			Sar	Δια	Glu	Glu		Glu	Δla	Lve	Glu		lve	Sor	Lve
M g	530	Gry	501	nı g	Olu	535	1111	Olu	MIG	Lys	540	014	Lys	261	Lys
G1v		Lvs	Lvs	Ala	Asn	Ser	Met	Glu	Ala	Ivs		Val	Glu	Glu	Pro
545	V.111	15,0	25,0		550	501	MC C	010		555	G <sub>1</sub> ,	,	0.44	014	560
	G1v	Asp	Glu	Tvr		Asp	Glu	Lvs	Glu		Glu	He	Glu	Arg	
•	3			565				_, -	570	, -				575	
Glu	Asp	Glu	Gln		Glu	Glu	Ala	Gln		Glu	Ala	Gly	Arg		Leu
	•		580					585					590	•	
Glu	Gln	Gly	Ala	Gln	Glu	Asp	G1n	Val	Ala	Glu	Glu	Lys	Trp	Glu	Val
		595					600					605			
Val	Gln	Lys	Gln	Glu	Ala	Glu	G1 y	Val	Arg	Glu	Asp	Glu	Asp	Lys	Gly
	610					615					620				

Gln	Arg	Glu	Lys	Gly	Tyr	His	Glu	Ala	Arg	Lys	Asp	Gln	Gly	Asp	Gly
625					630					635					640
Glu	Asp	Ser	Arg	Ser	Pro	Glu	Ala	Ala	Thr	Glu	Gly	Gly	Ala	Gly	Glu
				645					650					655	
Val	Ser	Lys	Glu	Arg	Glu	Ser	Gly	Asp	Gly	Glu	Ala	Glu	Gly	Asp	Gln
			660					665					670		
Arg	Ala	Gly	Gly	Tyr	Tyr	Leu	Glu	Glu	Asp	Thr	Leu	Ser	Glu	Gly	Ser
		675					680					685			
Gly	Val	Ala	Ser	Leu	G1u	Val	Asp	Cys	Ala	Lys	Glu	Gly	Asn	Pro	His
	690					695					700				
Ser	Ser	Glu	Met	Glu	Glu	Val	Ala	Pro	Gln	Pro	Pro	Gln	Pro	Glu	Glu
705					710					715					720
Met	Glu	Pro	Glu	<b>61</b> y	Gln	Pro	Ser	Pro	Asp	Gly	Cys	Leu	Cys	Pro	Cys
				725					730					735	
Ser	Leu	Gly	Leu	Gly	Gly	Val	Gly	Met	Arg	Leu	Ala	Ser	Thr	Leu	Va1
			740					745					750		
Gln	Val	Gln	Gln	Val	Arg	Ser	Val	Pro	Val	Val	Pro	Pro	Lys	Pro	Gln
		755					760					765			
Phe	Ala	Lys	Met	Pro	Ser	Ala	Met	Cys	Ser	Lys	Ile	His	Val	Ala	Pro
	770					775					780				
Ala	Asn	Pro	Cys	Pro		Pro	Gly	Arg	Leu		Gly	Thr	Pro	Gly	Glu
785					790					795					800
Arg	Ala	Trp	Glu		Arg	Ala	Ser	Arg		Ser	Trp	Arg	Asn		Gly
				805					810					815	
Ser	Leu	Ser		Asp	Ala	Ala	Val		Leu	Ala	Arg	Asp		Gln	Arg
			820					825			_		830		
Thr	Glu		Gln	Gly	Va]	Arg		Thr	GIn	Thr	Cys		Glu	Gly	Gly
		835					840	_	_	_	_	845	~ .		
Asp		Cys	Leu	He	Pro	Arg	Thr	Ser	Pro	Cys		Met	He	Ser	Ala
	850	n				855			0.1		860	0	0.1	0.1	. 1
	Ser	Pro	Arg	Pro		Ser	Cys	Leu	Glu		Pro	Ser	Glu	Gly	
865	0.1		0.1		870					875	Б	15		0.1	880
Glu	61 y	Ser	Ыу		Arg	Ser	Arg	Leu		Leu	Pro	Pro	Arg		Pro
C1	17 1	D		885 D	,		C	C	890	Α.	<b>A</b> .	C	т	895	DI
GIn	Val	Pro		Pro	Leu	Leu	Ser		GIn	Arg	Arg	Ser		Ala	Phe
			900					905					910		

Glu Thr Gln Ala Asn Pro Gly Lys Gly Glu Gly Leu 915 920

<210> 4051

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4051

Met Ile Leu Ser Cys Ile Asn Cys Gln Gly Asp Asn Arg Arg Cys Val

Pro Arg Pro Pro Leu Val Ser Arg Leu Glu Glu Ser Pro Gly Trp Cys
20 25 30

Ile Arg Ala Arg Gln Arg Gly Arg Pro Ser Gln Leu His Cys Lys Gln
35 40 45

Phe Gln Leu His Ser Gln Gly Gln Ala Pro Trp Lys Arg Leu Leu Phe 50 55 60

Asn Cys Trp Pro Phe Gln Pro His Cys Ala Asp Ser Ser Phe Ser Leu
65 70 75 80

Gly Tyr Gln Ser Val Pro Leu Gln Phe Thr Ile Val Phe Val Phe Leu 85 90 95

Ser Phe Thr Asn Cys Asp Met Ser Lys Leu Asn Tyr Ala Ile 100 105 110

<210> 4052

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4052

Met His Ala Gly Lys Arg Ser Pro Leu Thr Gln Ser Ile Ser Cys Val

1 5 10 15

Cys Leu Pro Glu Leu Gly Ala Leu Trp Glu Ile Glu Ser Ala Arg Val

20 25 30

Asn Leu Arg Val Ser Gly Arg Glu Ala Ser Arg Glu Met Glu Ser Ser Pro Arg Pro His Arg Ile Ala Gly Val Lys Arg Phe Leu Lys His Ala Gly Lys Trp Ser Leu Arg Trp Phe Leu Ser Pro Arg Trp Ile Leu Gln Phe Arg Arg Trp Ala Arg Lys Trp Ser Arg Phe Thr Arg Ser Ser Phe Gln Val Arg Trp Ala Ala Val Pro Ala Gly Lys Cys Ser Gln His Gln Gly Leu Ser Ala Val Ala Thr Ala Ser Pro Gly Val Phe Trp Glu Met Glu Phe Asp Val Ser Ser Pro Leu Thr Glu Gly Ala Gly Ser Pro Met Ser Ser Lys His Ala Gly Glu 

<210> 4053

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4053

Met Arg IIe Pro Leu Pro His Leu Met Ser Ser Tyr IIe Lys Asp Leu Cys Arg Ser Gly 11e Cys Glu Ser Leu Val Ser Asp Ala Val Leu Phe Ser Leu Thr Pro Val Ile Pro Glu Leu Trp Glu Ala Glu Thr Gly Arg Ser Pro Asp Val Gly Ser Ser Arg Pro Ser Trp Pro Thr Trp Arg Ser Leu Ser Leu Leu Lys Ile Gln Lys Leu Ala Ser Arg Gly Ser Ala Cys Leu Trp Ser Gln Leu Leu Gly Ser Leu Arg Gln Glu Asn Cys Leu Asn

 Leu
 Gly
 Gly
 Gly
 Cys
 Ser
 Glu
 Pro
 Lys
 Leu
 Cys
 Arg
 Cys
 Pro

 Ala
 Trp
 Val
 Thr
 Val
 Arg
 11e
 Cys
 Leu
 Lys
 Lys
 Lys
 Lys
 Lys
 Lys
 Lys
 Asn

 Trp
 Leu
 Gly
 Ala
 Val
 Ala
 Leu
 Ala
 Ser
 Asn
 Pro
 Asp
 Thr
 Leu
 Arg
 Gly

 Leu
 Val
 Trp
 Arg
 Ile
 Ala
 Iss
 I

<210> 4054

<211> 1260

<212> PRT

<213> Homo sapiens

<400> 4054

Met Gly Val Tyr Pro Thr Asp Leu Thr Leu Gln Leu Leu Ala Val Arg

1 5 10 15

Arg Lys Ser Arg Leu Arg Asp Pro Gly Leu Gln Gln Thr Leu Arg Gly
20 25 30

Gln Leu Arg Leu Leu Glu Asn Asp Ser Arg Glu Met Ala Arg Val Leu 35 40 45

Gly Glu Leu Ser Ala Arg Leu Leu Ser Ile His Ser Asp Gln Asp Arg 50 55 60

11e Val Val Thr Phe Lys Thr Phe Glu Glu 11e Trp Lys Phe Ser Thr
65 70 75 80

Tyr His Ala Leu Gly Phe Thr His His Cys Leu Ala Asn Leu Leu Met 85 90 95

Asp Gln Ala Phe Trp Leu Leu Leu Pro Ser Glu Glu Glu Glu Thr Ala 100 105 110

lle Gln Val His Val Asp Glu Asn Ala Leu Arg Leu Thr His Glu Ser 115 120 125

Leu Leu Ile Gln Glu Gly Pro Phe Phe Val Leu Cys Pro Asp His His 130 135 140

Leu	Arg	Gln	Ala	Ser	Gly	Ala	Pro	Gln	Gly	Glu	Ala	Ala	Pro	Glu	Thr
				165					170					175	
Asp	Ser	Ser	Pro	Pro	Ser	Pro	Ser	Val	Ser	Ser	Glu	Glu	Val	Ala	Val
			180					185					190		
Ala	Ala	Ala	Pro	Glu	Pro	Leu	He	Pro	Phe	His	Gln	Trp	Ala	Leu	Arg
		195					200					205			
He	Pro	Gln	Лsp	Pro	He	Asp	Asp	Λla	Met	Gly	Gly	Pro	Val	Met	Pro
	210					215					220				
Gly	Asn	Pro	Leu	Met	Ala	Val	Gly	Leu	Ala	Ser	Ala	Leu	Ala	Asp	Phe
225					230					235					240
Gln	Gly	Ser	Gly	Pro	Glu	Glu	Met	Thr	Phe	Arg	Gly	Gly	Asp	Leu	He
				245					250					255	
Glu	He	Leu	Gly	Ala	Gln	Val	Pro	Ser	Leu	Pro	Trp	Cys	Val	Gly	Arg
			260					265					270		
His	Ala	Ala	Ser	Gly	Arg	Val	Gly	Phe	Val	Arg	Ser	Ser	Leu	He	Ser
		275					280					285			
Met	Gln	Gly	Pro	Val	Ser	Glu	Leu	Glu	Ser	Ala	lle	Phe	Leu	Asn	Glu
	290					295					300				
Glu	Glu	Lys	Ser	Phe	Phe	Ser	Glu	Gly	Cys	Phe	Ser	Glu	Glu	Asp	Ala
305					310					315					320
Arg	Gln	Leu	Leu	Arg	Arg	Met	Ser	Gly	Thr	Asp	Val	Cys	Ser	Va]	Tyr
				325					330					335	
Ser	Leu	Asp	Ser	Val	Glu	Glu	Ala	Glu	Thr	Glu	Gln	Pro	Gln	Glu	Lys
			340					345					350		
Glu	lle	Pro	Pro	Pro	Cys	Leu	Ser	Pro	Glu	Pro	Gln	Glu	Thr	Leu	Gln
		355					360					365			
Lys	Val	Lys	Asn	Val	Leu	Glu	Gln	Cys	Lys	Thr	Cys	Pro	Gly	Cys	Pro
	370					375					380				
Gln	Glu	Pro	Ala	Ser	Trp	Gly	Leu	Cys	Ala	Ala	Ser	Ser	Asp	Val	Ser
385					390					395					400
Leu	G]n	Asp	Pro	Glu	Glu	Pro	Ser	Phe	Cys	Leu	Glu	Ala	Glu	Asp	Asp
				405					410					415	
Trp	Glu	Asp	Pro	Glu	Ala	Leu	Ser	Ser	Leu	Leu	Leu	Phe	Leu	Asn	Ala
			420					425					430		
Pro	Gly	Tyr	Lys	Ala	Ser	Phe	Arg	Gly	Leu	Tyr	Asp	Val	Ala	Leu	Pro
		435					440					445			

Trp	Leu	Ser	Ser	Val	Phe	Arg	Ser	Phe	Ser	Asp	Glu	Glu	Glu	Leu	Thr
	450					455					460				
Gly	Arg	Leu	Ala	Gln	Ala	Arg	Gly	Ala	Ala	Lys	Lys	Ala	Gly	Leu	Leu
465					470					475					480
Met	Ala	Leu	Ala	Arg	Leu	Cys	Phe	Leu	Leu	Gly	Arg	Leu	Cys	Ser	Arg
				485					490					495	
Arg	Leu	Lys	Leu	Ser	Gln	Ala	Arg	Val	Tyr	Phe	Glu	Glu	Ala	Leu	Gly
			500					505					510		
Ala	Leu	Glu	Gly	Ser	Phe	Gly	Asp	Leu	Phe	Leu	Val	Val	Ala	Val	Tyr
		515					520					525			
Ala	Asn	Leu	Ala	Ser	He	Tyr	Arg	Lys	Gln	Lys	Asn	Arg	Glu	Lys	Cys
	530					535					540				
Ala	Gln	Val	Val	Pro	Lys	Ala	Met	Ala	Leu	Leu	Leu	Gly	Thr	Pro	Asp
545					550					555					560
His	He	Cys	Ser	Thr	Glu	Ala	Glu	Gly	Glu	Leu	Leu	Gln	Leu	Ala	Leu
				565					570					575	
Arg	Arg	Ala	Val	Gly	Gly	Gln	Ser	Leu	Gln	Ala	Glu	Ala	Arg	Ala	Cys
			580					585					590		
Phe	Leu	Leu	Ala	Arg	His	His	Val	His	Leu	Lys	Gln	Pro	Glu	Glu	Ala
		595					600					605			
Leu	Pro	Phe	Leu	Glu	Arg	Leu	Leu	Leu	Leu	His	Arg	Asp	Ser	Gly	Ala
	610					615					620				
Pro	Glu	Ala	Ala	Trp		Ser	Asp	Cys	Tyr		Leu	Leu	Ala	Asp	
625					630					635					640
Tyr	Ser	Arg	Lys		Leu	Pro	His	Leu		Leu	Ser	Cys	Val	Lys	Val
				645					650					655	
Ala	Ser	Leu		Thr	Arg	Gly	Ser		Ala	Gly	Ser	Leu		Ser	Val
			660					665			_		670		
Asn	Leu		Leu	GIn	Asn	Ala		G1n	Pro	His	Ser		Pro	Ala	Gln
<b></b> .		675					680					685	-		<b></b>
Thr		His	Tyr	Leu	Arg		Ala	Leu	Ala	Ser		Thr	Pro	Gly	Thr
0.1	690		•		0.1	695		m	mı		700		0.1		m
	GIn	Ala	Leu	Cys		Pro	Leu	lyr	Hhr		Leu	Ala	GIn	Leu	
705			6.1	6	710	0.1	ь			715	101	14		0.3	720
Ser	His	His	Gly		His	Gly	Pro	Ala		Ihr	Phe	Met	Ihr	Gln	Ala
				725					730					735	

Val	Glu	Ala	Ser	Ala	Ile	Ala	Gly	Val	Arg	Ala	He	Val	Asp	His	Leu
			740					745					750		
Val	Ala	Leu	Ala	Trp	Leu	His	Val	Leu	His	Gly	Gln	Ser	Pro	Val	Ala
		755					760					765			
Leu	Asp	He	Leu	Gln	Ser	Val	Arg	Asp	Ala	Val	Val	Ala	Ser	Glu	Asp
	770					775					780				
Gln	Glu	Gly	Val	Пе	Ala	Asn	Met	Val	Ala	Val	Ala	Leu	Lys	Arg	Thr
785					790					795					800
Gly	Arg	Thr	Arg	Gln	Ala	Ala	Glu	Ser	Tyr	Tyr	Arg	Ala	Leu	Arg	Val
				805					810					815	
Ala	Arg	Asp	Leu	Gly	Gln	Gln	Arg	Asn	Gln	Ala	Val	Gly	Leu	Ala	Asn
			820					825					830		
Phe	Gly	Ala	Leu	Cys	Leu	His	Ala	Gly	Ala	Ser	Arg	Leu	Ala	Gln	His
		835					840					845			
Tyr	Leu	Leu	Glu	Ala	Val	Arg	Leu	Phe	Ser	Arg	Leu	Pro	Leu	Gly	Glu
	850					855					860				
Cys	Gly	Arg	Asp	Phe	Thr	His	Val	Leu	Leu	Gln	Leu	Gly	His	Leu	Cys
865					870					875					880
Thr	Arg	Gln	Gly	Pro	Ala	Gln	Gln	Gly	Lys	Gly	Tyr	Tyr	Glu	Trp	Ala
				885					890					895	
Leu	Leu	Val	Ala	Val	Glu	Met	Gly	His	Val	Glu	Ser	Gln	Leu	Arg	Ala
			900					905					910		
Val	Gln	Arg	Leu	Cys	His	Phe	Tyr	Ser	Ala	Val	Met	Pro	Ser	Glu	Ala
		915					920					925			
Gln	Cys	Va]	lle	Tyr	His	Glu	Leu	Gln	Leu	Ser	Leu	Ala	Cys	Lys	Val
	930	٠				935					940				
Ala	Asp	Lys	Val	Leu	Glu	Gly	Gln	Leu	Leu	Glu	Thr	lle	Ser	Gln	Leu
945					950					955					960
Tyr	Leu	Ser	Leu	Gly	Thr	Glu	Arg	Ala	Tyr	Lys	Ser	Ala	Leu	Asp	Tyr
				965					970					975	
Thr	Lys	Arg	Ser	Leu	Gly	lle	Phe	11e	Asp	Leu	Gln	Lys	Lys	Glu	Lys
			980					985					990		
Glu	Ala	His	Ala	Trp	Leu	Gln	Ala	Gly	Lys	lle	Tyr	Tyr	He	Leu	Arg
		995					1000					1005			
Gln	Ser	Glu	Leu	Val	Asp	Leu	Tyr	lle	Gln	Val	Ala	Gln	Asn	Val	Ala
	1010					1015					1020				

Leu Tyr	Thr	Gly	Asp	Pro	Asn	Leu	Gly	Leu	Glu	Leu	Phe	Glu	Ala	Ala
1025			1	1030					035				,	1040
Gly Asp	lle	Phe	Phe	Asp	Gly	Ala	Trp	Glu	Arg	Glu	Lys	Ala	Val	Ser
		]	1045					1050					1055	
Phe Tyr	Arg	Asp	Arg	Ala	Leu	Pro	Leu	Ala	Val	Thr	Thr	Gly	۸sn	Arg
		1060					1065					1070		
Lys Ala	Glu	Leu	Arg	Leu	Cys	Asn	Lys	Leu	Val	Ala	Leu	Leu	Ala	Thr
	1075				]	080					1085			
Leu Glu	Glu	Pro	Gln	Glu	Gly	Leu	Glu	Phe	Ala	His	Met	Ala	Leu	Ala
1090	)			]	095					1100				
Leu Ser	· lle	Thr	Leu	Gly	Asp	Arg	Leu	Asn	Glu	Arg	Val	Ala	Tyr	His
1105			]	1110					1115				-	1120
Arg Lei	Ala	Ala	Leu	Gln	His	Arg	Leu	Gly	His	Gly	Glu	Leu	Ala	Glu
		j	1125					1130					1135	
His Phe	Tyr	Leu	Lys	Ala	Leu	Ser	Leu	Cys	Asn	Ser	Pro	Leu	Glu	Phe
		1140					1145					1150		
Asp Glu		1140	Leu	Tyr	Tyr			Val	Tyr	Leu			Gly	Asp
Asp Gli		1140	Leu	Tyr				Val	Tyr				Gly	Asp
Asp Glu	Glu 1155	1140 Thr				Val 1160	Lys				Val 11 <b>6</b> 5	Leu		
	Glu 1155 Phe	1140 Thr		Leu		Val 1160	Lys		Asp		Val 11 <b>6</b> 5	Leu		
lle lle	1155 1156 Phe	1140 Thr Tyr	Asp	Leu	Lys 1175	Val 1160 Asp	Lys Pro	Phe	Asp	Ala 1180	Val 1165 Ala	Leu Gly	Tyr	Tyr
lle lle	1155 1156 Phe	1140 Thr Tyr	Asp Ala	Leu	Lys 1175	Val 1160 Asp	Lys Pro	Phe Leu	Asp	Ala 1180	Val 1165 Ala	Leu Gly	Tyr Ala	Tyr
lle lle 1170 Gln Leu	Glu 1155 Phe )	Thr Tyr Leu	Asp Ala	Leu Ala 1190	Lys 1175 Ala	Val 1160 Asp Val	Lys Pro Asp	Phe Leu	Asp Gly	Ala 1180 Asn	Val 1165 Ala Lys	Leu Gly Lys	Tyr Ala	Tyr Gln 1200
11e 11e 1170 Gln Leu 1185	Glu 1155 Phe )	Thr Tyr Leu	Asp Ala	Leu Ala 1190	Lys 1175 Ala	Val 1160 Asp Val	Lys Pro Asp Thr	Phe Leu	Asp Gly	Ala 1180 Asn	Val 1165 Ala Lys	Leu Gly Lys Phe	Tyr Ala	Tyr Gln 1200
11e 11e 1170 Gln Leu 1185	Glu 1155 Phe Ala	Thr Tyr Leu Tyr	Asp Ala Thr 1205	Leu Ala 1190 Arg	Lys 1175 Ala Leu	Val 1160 Asp Val	Lys Pro Asp Thr	Phe Leu Ile 1210	Asp Gly 1195 Tyr	Ala 1180 Asn His	Val 1165 Ala Lys Asn	Leu Gly Lys Phe	Tyr Ala Leu 1215	Tyr Gln 1200 Leu
He He 1170 Gln Leu 1185 Leu Lys	Glu 1155 Phe Ala He	Thr Tyr Leu Tyr	Asp Ala Thr 1205	Leu Ala 1190 Arg	Lys 1175 Ala Leu	Val 1160 Asp Val Ala	Lys Pro Asp Thr	Phe Leu Ile 1210	Asp Gly 1195 Tyr	Ala 1180 Asn His	Val 1165 Ala Lys Asn	Leu Gly Lys Phe	Tyr Ala Leu 1215	Tyr Gln 1200 Leu
He He 1170 Gln Leu 1185 Leu Lys	Glu 1155 Phe Ala Ala Glu	Tyr Leu Tyr Lys 1220	Asp Ala Thr 1205 Ser	Leu Ala 1190 Arg Leu	Lys 1175 Ala Leu Phe	Val 1160 Asp Val Ala Phe	Pro Asp Thr Tyr 1225	Phe Leu Ile I210 Gln	Asp Gly 1195 Tyr Lys	Ala 1180 Asn His	Val 1165 Ala Lys Asn	Gly Lys Phe Thr	Tyr Ala Leu 1215 Phe	Tyr Gln 1200 Leu Ala
Ile Ile 1170 Gln Leu 1185 Leu Lys Asp Arg	Glu 1155 Phe Ala Ala Glu	Tyr Leu Tyr Lys 1220	Asp Ala Thr 1205 Ser	Leu Ala 1190 Arg Leu	Lys 1175 Ala Leu Phe	Val 1160 Asp Val Ala Phe	Pro Asp Thr Tyr 1225	Phe Leu Ile I210 Gln	Asp Gly 1195 Tyr Lys	Ala 1180 Asn His Ala	Val 1165 Ala Lys Asn	Gly Lys Phe Thr	Tyr Ala Leu 1215 Phe	Tyr Gln 1200 Leu Ala
Ile Ile 1170 Gln Leu 1185 Leu Lys Asp Arg	Glu 1155 Phe Ala Glu Leu 1235	Thr  Tyr  Leu  Tyr  Lys  1220  Asn	Asp Ala Thr 1205 Ser Val	Leu Ala 1190 Arg Leu	Lys 1175 Ala Leu Phe	Val 1160 Asp Val Ala Phe Val	Pro Asp Thr Tyr 1225 Asn	Phe Leu Ile I210 Gln Leu	Asp Gly 1195 Tyr Lys	Ala 1180 Asn His Ala	Val 1165 Ala Lys Asn Arg	Gly Lys Phe Thr	Tyr Ala Leu 1215 Phe	Tyr Gln 1200 Leu Ala

<210> 4055

⟨211⟩ 152

<212> PRT

<213≻ Homo sapiens

<400> 4055 Met Gly Phe Ala Glu Ala Phe Leu Glu His Leu Trp Lys Asn Leu Gln Asp Pro Ser Asn Pro Ala Ile Ile Arg Gln Ala Ala Gly Asn Tyr Ile Gly Ser Phe Leu Ala Arg Ala Lys Phe Ile Ser Leu Ile Thr Val Lys Pro Cys Leu Asp Leu Leu Val Asn Trp Leu His Ile Tyr Leu Asn Asn Gln Asp Ser Gly Thr Lys Ala Phe Cys Asp Val Ala Leu His Gly Pro Phe Tyr Ser Ala Cys Gln Ala Val Phe Tyr Thr Phe Val Phe Arg His Lys Gln Leu Leu Ser Gly Asn Leu Lys Glu Gly Leu Gln Tyr Pro Gln Ser Leu Asn Phe Glu Arg Ile Val Met Ser Gln Leu Asn Pro Leu Lys Ile Cys Leu Pro Ser Val Val Asn Phe Phe Ala Ala Ile Thr Lys Met Lys Thr Cys Gly Tyr Gly Trp Trp <210> 4056 <211> 102 <212> PRT <213> Homo sapiens <400> 4056 Met Leu Cys Trp Leu Ser Leu Pro His Arg Lys Val Phe Ser Phe

<210> 4057

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4057

Met Pro Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Leu
1 5 10 15

Glu Val Arg Gly Ser Gly Pro Ala Trp Pro Thr Trp Trp Asn Pro Val 20 25 30

Ser Thr Lys Asn Thr Lys Val Ser Trp Met Trp Trp Arg Val Pro Val
35 40 45

Val Pro Ala Ala Arg Glu Ala Glu Ala Gly Glu Ala Leu Glu Pro Gly 50 55 60

Arg Arg Leu Gln Trp Ala Glu Val Val Ser Leu His Ser Ser Leu
65 70 75 80

Gly Val Thr Val Arg Ile Cys Leu Lys Lys Arg Lys Lys Lys Lys 85 90 95

Asn Pro Arg Lys Asn Lys Glu Thr Gln Met Leu Gly Val Gly Ile Asn 100 105 110

Tyr Met Thr Pro Tyr Arg Cys Gln Pro Leu His Pro Ser Leu Phe Gln
115 120 125

Thr Pro Cys Arg Val Ser Tyr Val Leu Arg Leu Leu Lys Asn Lys 130 135 140 ⟨210⟩ 4058 <211> 122 <212> PRT <213> Homo sapiens <400> 4058 Met Arg Lys His Ile Lys Glu Arg Glu Leu Ser Leu Met Glu Gln Ile 10 5 Lys Glu Phe Ile Leu Glu Arg Asn Thr Met Asn Val Pro Thr Val Gly 20 25 30 Lys Pro Phe Ser Gly Arg His Ser Leu Leu Ser 11e Arg Glu Phe Thr 40 45 Leu Gly Arg Ser Pro Met Asn Val Met Asn Val Gly Glu Pro Ser Glu 50 55 Lys Lys Pro Thr Cys Met 11e 11e Arg Glu Phe 11e Leu Glu Lys Asn 70 75 Pro Ile Leu Val Arg Asn Val Gly Lys Thr Ser Ala Glu Val Gln Leu 85 90 Leu Leu Asn Thr Arg Glu Phe lle Leu Glu lle Asn Ser Arg Asn Arg 100 105 110 Glu lle Lys Glu Phe Ala Glu Cys Phe Ser 115 120 <210> 4059 <211> 132 <212> PRT <213> Homo sapiens <400> 4059 Met Glu Ile Ser Ala Pro Ser Gln Gln Arg Gln Gln Ile Ala Glu Ile 10

Glu Lys Gln Thr Lys Glu Gln Ser Gln Leu Thr Ala Thr Gln Thr Arg

Thr Val Asn Lys His Gly Asp Glu lle lle Thr Ser Thr Thr Ser Asn

40

25

30

45

20

Tyr Glu Thr Gln Thr Phe Ser Ser Lys Thr Glu Trp Arg Val Arg Ala Ile Ser Ala Ala Asn Leu His Leu Arg Thr Asn His lle Tyr Val Ser Ser Asp Asp Ile Lys Glu Thr Gly Tyr Thr Tyr Ile Leu Pro Lys Asn Val Leu Lys Lys Phe Ile Cys lle Ser Asp Leu Arg Ala Gln Val Ser Lys Trp Thr Gln Leu Gly His Ser Val Cys Pro Thr His Phe Val Pro Lys Thr Gln Thr 

<210> 4060 <211> 271 <212> PRT

<213> Homo sapiens

<400> 4060

Met Ala Ala Val Glu Lys Arg Arg Gln Ala Val Pro Pro Pro Ala Gly Phe Thr Asp Ser Gly Arg Gln Ser Val Ser Arg Ala Ala Gly Ala Ala Glu Ser Glu Glu Asp Phe Leu Arg Gln Val Gly Val Thr Glu Met Leu Arg Ala Ala Leu Leu Lys Val Leu Glu Ala Arg Pro Glu Glu Pro Ile Ala Phe Leu Ala His Tyr Phe Glu Asn Met Gly Leu Arg Ser Pro Val Asn Gly Gly Ala Gly Glu Pro Pro Gly Gln Leu Leu Gln Gln Gln Arg Leu Gly Arg Ala Leu Trp His Leu Arg Leu Ala His His Ser Gln 

Arg Ala Ala Phe Asn Asn Val Ser Val Ala Tyr Glu Cys Leu Ser

Ala Gly Gly Arg Arg Lys Arg Pro Gly Leu Asp Gly Arg Thr Tyr Ser Glu Leu Leu Arg Arg lle Cys Arg Asp Gly Gln Ala Pro Glu Glu Val 145 150 155 Val Ala Pro Leu Leu Arg Lys Val Gln Cys Arg Asp His Glu Ala Val 165 170 Pro Leu Ser Val Phe Arg Ala Gly Thr Leu Thr Cys Phe Val Leu Leu 190 185 Glu Phe Val Ala Arg Ala Gly Ala Leu Phe Gln Leu Leu Glu Asp Ser 195 200 205 Ala Ala Ala Val Ala Asp Arg Arg Val Gly Gln Ala Val Leu Asp Thr 215 220 Leu Glu Gly Ala Leu Gln Ala Ser Asp Ala Ala Ala Pro Ala Arg Phe 225 230 235 240 Leu Glu Ala Gly Ser Arg Leu Ala Pro Met Thr Arg Glu Glu Phe Leu 245 250 Glu Arg Ala Ala Ala Leu Phe Ile Ala Lys Val Lys Pro Val Gly 260 265 270

<210> 4061

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4061

Met Glu Ala Pro His Pro Phe His Ser Gly Val Ala Ala Thr His His

1 5 10 15

Lys Ser Thr Phe Arg Ser Glu Leu Phe Arg Gly Gly Ser Arg Gln Phe
20 25 30

Val Ser Pro Gly Arg Pro Ala Gly Phe Pro Ala Cys Cys Gly Leu Ser 35 40 45

Val Gly Pro Thr Gly Ala Gly Glu Gly Trp Arg Gly Leu Ala Gly Thr
50 55 60

Arg Gly Ala Glu Pro Ala Leu Ala Lys Pro Ser Ser Glu Glu Arg Arg

70 80 75 65 Leu Trp Leu Arg Ala Leu Arg Ser Gln Val Ala Gly Ser Ser Arg Gly 90 85 Ser Gly Pro Val Pro Ser Ala Asp Pro Gly Ser Arg Ala Leu Val Val 105 110 100 Ser Ala Gly Gly Lys Val Thr Arg Ser Gly Arg Arg Arg Arg Val Arg 120 125 Gly Ala Glu Arg Gly Lys Glu Arg Val Gln Arg Ala Gly Glu Ser Phe 130 135 140 Arg Lys Ser Gly Arg Gly Arg Tyr Leu Pro Val Pro Ser Pro Arg Ala 155 Thr Arg Gln Ile Gly Glu Gly 165

<210> 4062

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4062

Met Phe Phe Cys His Gly Phe Ser Trp Ser Leu His Leu Gly Pro Leu 1 5 10 15

Thr Ser His Asn Thr Asp Gln Arg Gly Glu Thr Pro Ser Leu Leu Lys
20 25 30

Val Gln Gly Ser Ala Glu Cys Ala Gly Ala Ser Leu Glu Ser Gln Leu 35 40 45

Leu Gly Arg Leu Arg Arg Glu Asn Arg Leu Asn Pro Gly Gly Trp Gly 50 55 60

Cys Ser Glu Leu Arg Ser Cys His Cys Thr Pro Ala Trp Arg Gln Ser
65 70 75 80

Lys Thr Pro Phe Gln Thr Asn Lys Gln Met Asn lle Ala Ile lle Leu 85 90 95

Lys Tyr Tyr Val Arg Ile Lys Tyr Val Ile Phe Arg Phe Leu Leu Met 100 105 110

Tyr Asn Met His Thr Glu Ile His Pro Gln

115 120

<210> 4063

<211> 142

<212> PRT

<213> Homo sapiens

<400> 4063

Met Pro Val Phe Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Val His

1 5 10 15

His His Ala Gly Leu Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe
20 25 30

Leu Tyr Val Gly Gln Ala Asp Leu Glu Leu Pro Thr Ser Gly Asp Pro
35 40 45

Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Cys
50 55 60

Thr Arg Leu Ser Leu Val Leu Arg His Leu Leu Asp Thr Pro Ser Leu 65 70 75 80

Arg Ala Glu Arg Ser Pro Arg Pro Val Pro Arg Asp Lys Ala Gln Gly
85 90 95

Arg Val Tyr Leu Gly Ser Arg Gly Gly Glu Gly Val Glu Lys Ala Glu
100 105 110

Leu Glu Ser Ile Thr Leu Pro Thr Asn His Gln Thr Ala Gly Thr Leu 115 120 125

Gln Pro Asn Ala Gly Arg Arg Thr Trp Arg Val Ser Leu Cys 130 135 140

<210> 4064

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4064

Met Phe Ala Pro Leu His Ser Gly Leu Asp Asp Arg Val Arg Leu Cys 1 Leu Lys Lys Lys Ile Ile Ile Thr Asn Leu Ala Asn Gly Arg Leu Phe Lys Leu Thr Cys Val Phe Leu Thr His Pro His His Phe Phe Thr 40 45 Arg Phe Leu Ala Phe Trp His Lys Ile Val Phe Phe Leu Cys Ser Asn 55 60 Pro Gly Ile Ser His Phe Pro Arg Glu Leu Trp Ile Leu Leu Val Glu 70 75 65 80 Ser Leu Asn Leu Gly Ile Leu Gln Asp Leu Asp Ala Arg Cys Ala His 90 Cys His Trp Gly Ala Thr Ala Leu His Ala Leu Ser Gly His Ser Gln 100 105 110 Gly Met Cys Val Cys Ser Phe Leu Cys Gly Met Lys Thr Met Cys Ser 120 Trp Cys Tyr Leu Met Thr Glu Val Ile Phe Ile Phe Ser Leu Ser Met 135 Phe Val Ala Leu Leu Ser Asp Gly Glu Lys Pro Gly Phe Tyr Tyr Leu 145 150 155 160

<210> 4065

<211> 409

<212> PRT

<213> Homo sapiens

<400> 4065

Met Glu Glu Ser Trp Glu Ala Ala Pro Gly Gly Gln Ala Gly Ala Glu

1 5 10 15

Leu Pro Met Glu Pro Val Gly Ser Leu Val Pro Thr Leu Glu Gln Pro
20 25 30

Gln Val Pro Ala Lys Val Arg Gln Pro Glu Gly Pro Glu Ser Ser Pro 35 40 45

Ser Pro Ala Gly Ala Val Glu Lys Ala Ala Gly Ala Gly Leu Glu Pro 50 55 60

Ser	Ser	Lys	Lys	Lys	Pro	Pro	Ser	Pro	Arg	Pro	Gly	Ser	Pro	Arg	Val
65					70					75					80
Pro	Pro	Leu	Ser	Leu 85	Gly	Tyr	Gly	Va]	Cys		Glu	Pro	Pro	Ser 95	Pro
Gly	Pro	Ala	Leu	Val	Lys	Leu	Pro	Arg	Asn	Gly	Glu	Ala	Pro	G1 y	Ala
			100					105					110		
Glu	Pro	Ala	Pro	Ser	Ala	Trp	Ala	Pro	Met	Glu	Leu	Gln	Val	Asp	Val
		115					120					125			
Arg	Val	Lys	Pro	Val	Gly	Ala	Ala	Gly	Gly	Ser	Ser	Thr	Pro	Ser	Pro
	130					135					140				
Arg	Pro	Ser	Thr	Arg	Phe	Leu	Lys	Val	Pro	Val	Pro	Glu	Ser	Pro	Ala
145					150					155					160
Phe	Ser	Arg	His	Ala	Asp	Pro	Ala	His	Gln	Leu	Leu	Leu	Arg	Ala	Pro
				165					170					175	
Ser	Gln	Gly	Gly	Thr	Trp	Gly	Arg	Arg	Ser	Pro	Leu	Ala	Ala	Ala	Arg
			180					185					190		
Thr	Glu	Ser	Gly	Cys	Asp	Ala	Glu	Gly	Arg	Ala	Ser	Pro	Ala	Glu	G1 y
		195					200					205			
Ser		Gly	Ser	Pro	Gly		Pro	Thr	Cys	Cys		Cys	Lys	Glu	Leu
	210					215					220			_	
	Leu	Glu	Lys	Glu		Ala	Ala	Leu	Leu		Arg	Ala	Gly	Leu	
225					230					235					240
G1 y	Asp	Glu	Lys		Pro	Arg	Ala	Val		Leu	Thr	Gly	Leu		Met
				245	m	m			250	201		. 1		255	
lyr	Val	Lys		Leu	lyr	Trp	Ala	Leu	Ala	Phe	Met	Ala		Leu	Leu
			260					265					270		
Ala	Val	Ser	Gly	Val	Val	Ile	Val	Val	Leu	Ala	Ser	Arg	Ala	Gly	Ala
		275					280					285			
Arg	Cys	Gln	Gln	Cys	Pro	Pro	Gly	Trp	Val	Leu	Ser	Glu	Glu	His	Cys
	290					295					300				
Tyr	Tyr	Phe	Ser	Ala	Glu	Ala	Gln	Ala	Trp	Glu	Ala	Ser	Gln	Ala	Phe
305					310					315					320
Cys	Ser	Ala	Tyr	His	Ala	Thr	Leu	Pro	Leu	Leu	Ser	His	Thr	Gln	Asp
				325					330					335	
Pho	Lau	G1v	Δra	Tur	Pro	Val	Sor	Δησ	Hic	Sar	Trn	Val	G1v	Δla	Ten

Arg Gly Pro Gln Gly Trp His Trp Ile Asp Glu Ala Pro Leu Pro Pro Gln Leu Leu Pro Glu Asp Gly Glu Asp Asn Leu Asp Ile Asn Cys Gly Ala Leu Glu Glu Gly Thr Leu Val Ala Ala Asn Cys Ser Thr Pro Arg Pro Trp Val Cys Ala Lys Gly Thr Gln <210> 4066 <211> 120 <212> PRT <213> Homo sapiens <400> 4066 Met Arg Cys Leu Arg Leu Arg Gln Ser Ser Leu Glu Pro Val Ala Phe Arg Leu Pro Arg Val Arg Lys Glu Phe Phe Gln Asp Asp Val Phe Pro Asp Thr Ala Val Ile Trp Glu Pro Val Leu Ser Ala Glu Ala Trp Leu Gln Gly Ala Asn Gly Gln Pro Trp Leu Leu Ser Leu Gln Pro Pro Asp Met Ser Pro Val Ser Gln Ala Pro Arg Glu Ala Pro Ala Arg Arg Ala Pro Ser Ser Ala Gln Tyr Leu Glu Glu Lys Ser Asp Gln Gln Lys Lys Glu Glu Val Gly Met Gly Glu Ser Ser Cys Ala Glu Val Thr Glu Ser 

Trp Leu His Leu Ala Thr Ala Pro

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<211> 507
<212> PRT
<213> Homo sapiens
<400> 4067
Met Ala Glu Leu Asp Gln Leu Pro Asp Glu Ser Ser Ser Ala Lys Ala
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Leu Val Ser Leu Lys Glu Gly Ser Leu Ser Asn Thr Trp Asn Glu Lys
                                 25
             20
                                                      30
Tyr Ser Ser Leu Gln Lys Thr Pro Val Trp Lys Gly Arg Asn Thr Ser
Ser Ala Val Glu Met Lys Phe Thr Ala Thr Met Ser Thr Pro Asp Lys
                         55
                                              60
Lys Ala Ser Gln Lys lle Gly Phe Arg Leu Arg Asn Leu Leu Lys Leu
                     70
                                          75
65
                                                              80
Pro Lys Ala His Lys Trp Cys Ile Tyr Glu Trp Phe Tyr Ser Asn Ile
                 85
                                     90
Asp Lys Pro Leu Phe Glu Gly Asp Asn Asp Phe Cys Val Cys Leu Lys
            100
                                105
                                                     110
Glu Ser Phe Pro Asn Leu Lys Thr Arg Lys Leu Thr Arg Val Glu Trp
                            120
Gly Lys lle Arg Arg Leu Met Gly Lys Pro Arg Arg Cys Ser Ser Ala
                        135
Phe Phe Glu Glu Glu Arg Ser Ala Leu Lys Gln Lys Arg Gln Lys Ile
145
                    150
                                         155
                                                             160
Arg Leu Leu Gln Gln Arg Lys Val Ala Asp Val Ser Gln Phe Lys Asp
                                     170
                165
Leu Pro Asp Glu Ile Pro Leu Pro Leu Val Ile Gly Thr Lys Val Thr
            180
                                185
                                                     190
Ala Arg Leu Arg Gly Val His Asp Gly Leu Phe Thr Gly Gln Ile Asp
        195
                            200
                                                 205
Ala Val Asp Thr Leu Asn Ala Thr Tyr Arg Val Thr Phe Asp Arg Thr
                        215
                                             220
Gly Leu Gly Thr His Thr Ile Pro Asp Tyr Glu Val Leu Ser Asn Glu
225
                    230
                                         235
                                                             240
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Pro His Glu Thr Met Pro Ile Ala Ala Phe Gly Gln Lys Gln Arg Pro

				0.45					050					055	
				245					250					255	
Ser	Arg	Phe	Phe	Met	Thr	Pro	Pro	Arg	Leu	His	Tyr	Thr	Pro	Pro	Leu
			260					265					270		
Gln	Ser	Pro	lle	lle	Asp	Asn	Asp	Pro	Leu	Leu	Gly	Gln	Ser	Pro	Trp
		275					280					285			
Arg	Ser	Lys	lle	Ser	Gly	Ser	Asp	Thr	Glu	Thr	Leu	Gly	Gly	Phe	Pro
	290					295					300				
Val	Glu	Phe	Leu	He	Gln	Val	Thr	Arg	Leu	Ser	Lys	lle	Leu	Met	He
305					310					315					320
Lys	Lys	Glu	His	Ile	Lys	Lys	Leu	Arg	Glu	Met	Asn	Thr	Glu	Ala	Glu
				325					330					335	
Lvs	Leu	Lvs	Ser		Ser	Met	Pro	Tle		lle	Glu	Phe	G1n		Arg
,		,	340	,				345					350		
Tvr	Ala	Thr		Va1	l.eu	Glu	Leu		Gln	Leu	Asn	Lvs		Leu	Asn
- , -		355					360					365			
lvs	Val		His	lvs	Val	Gln		Tvr	Cvs	Tvr	Glu		Ala	Pro	Asn
Б,О	370	Dea		15,0	, 41	375	0111	.,.	0,0	• , ,	380	200			
G1n		Len	Gln	Pro	Ala	Asp	Gln	Pro	Thr	Asn		Aro	Arg	Aro	Cvs
385	019	LCG	0111	110	390	пор	OIII	110	1111	395	me e	s	, m 8	111 6	400
	C1n	Glu	Δla	Gln		lle	Val	Δησ	Hic		Acn	Sor	Sor	Thr	
Olu	Olu	Glu	MId	405	Olu	116	101	ni g	410	Mia	поп	561	361	415	Gry
Cln.	Dro	Cva	Vo.1		Aan	Clu	Acn	Lou		Acn	Lou	Ha	Sor		Lau
GIII	110	Cys		010	ASII	Glu	ASII		1111	ash	Leu	116		Aig	Leu
Th	۸1	T1.	420	I	C1	T1.	Luc	425	ىدە 1	41 a	C1	C1	430	A	I
ınr	Ala		Leu	Leu	GIN	He		Cys	Leu	Ala	GIU		GIY	Asp	Leu
		435	0.1	131			440	<b></b>				445			
Asn		Phe	Glu	Phe	Lys	Ser	Leu	Thr	Asp	Ser		Asn	Asp	He	Lys
	450					455					460				
Ser	Thr	lle	Asp	Ala	Ser	Asn	lle	Ser	Cys	Phe	Gln	Asn	Asn	Val	Glu
465					470					475					480
lle	His	Val	Ala	His	He	Gln	Ser	Gly	Leu	Ser	Gln	Met	Gly	Asn	Leu
				485					490					495	
His	Ala	Phe	Ala	Ala	Asn	Asn	Thr	Asn	Arg	Asp					
			500					505							

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<211> 601
<212> PRT
<213> Homo sapiens
<400> 4068
Met Ala Ala Leu Thr Pro Arg Lys Arg Lys Gln Asp Ser Leu Lys Cys
Asp Ser Leu Leu His Phe Thr Glu Asn Leu Phe Pro Ser Pro Asn Lys
Lys His Cys Phe Tyr Gln Asn Ser Asp Lys Asn Glu Glu Asn Leu His
                             40
Cys Ser Gln Gln Glu His Phe Val Leu Ser Ala Leu Lys Thr Thr Glu
                         55
                                             60
lle Asn Arg Leu Pro Ser Ala Asn Gln Gly Ser Pro Phe Lys Ser Ala
65
                     70
                                         75
                                                              80
Leu Ser Thr Val Ser Phe Tyr Asn Gln Asn Lys Trp Tyr Leu Asn Pro
                 85
                                     90
Leu Glu Arg Lys Leu Ile Lys Glu Ser Arg Ser Thr Cys Leu Lys Thr
            100
                                105
                                                     110
Asn Asp Glu Asp Lys Ser Phe Pro Ile Val Thr Glu Lys Met Gln Gly
                            120
Lys Pro Val Cys Ser Lys Lys Asn Asn Lys Lys Pro Gln Lys Ser Leu
                        135
                                            140
Thr Ala Lys Tyr Gln Pro Lys Tyr Arg His Ile Lys Pro Val Ser Arg
                    150
                                                             160
145
                                        155
Asn Ser Arg Asn Ser Lys Gln Asn Arg Val Ile Tyr Lys Pro lle Val
                                    170
                165
Glu Lys Glu Asn Asn Cys His Ser Ala Glu Asn Asn Ser Asn Ala Pro
                                                     190
            180
                                185
Arg Val Leu Ser Gln Lys Ile Lys Pro Gln Val Thr Leu Gln Gly Gly
        195
                            200
                                                 205
Ala Ala Phe Phe Val Arg Lys Lys Ser Ser Leu Arg Lys Ser Ser Leu
                        215
                                            220
Glu Asn Glu Pro Ser Leu Gly Arg Thr Gln Lys Ser Lys Ser Glu Val
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Ile Glu Asp Ser Asp Val Glu Thr Val Ser Glu Lys Lys Thr Phe Ala

				245					250					255	
Thr	Arg	Gln	Val	Pro	Lys	Cys	Leu	Val	Leu	Glu	Glu	Lys	Leu	Lys	He
			260					265					270		
G1 y	Leu	Leu	Ser	Ala	Ser	Ser	Lys	Asn	Lys	Glu	Lys	Leu	He	Lys	Asp
		275					280					285			
Ser	Ser	Asp	Asp	Arg	Val	Ser	Ser	Lys	Glu	His	Lys	Val	Asp	Lys	Asn
	290					295					300				
Glu	Ala	Phe	Ser	Ser	Glu	Asp	Ser	Leu	Gly	Glu	Asn	Lys	Thr	Ile	Ser
305					310					315					320
Pro	Lys	Ser	Thr	Val	Tyr	Pro	Ile	Phe	Ser	Ala	Ser	Ser	Val	Asn	Ser
				325					330					335	
Lys	Arg	Ser	Leu	Gly	Glu	$\operatorname{Gl} u$	Gln	Phe	Ser	Val	Gly	Ser	Val	Asn	Phe
			340					345					350		
Met	Lys	Gln	Thr	Asn	He	Gln	Lys	Asn	Thr	Asn	Thr	Arg	Asp	Thr	Ser
		355					360					365			
Lys	Lys	Thr	Lys	Asp	Gln	Leu	lle	lle	Asp	Ala	Gly	Gln	Lys	His	Phe
	370					375					380				
Gly	Ala	Thr	Val	Cys	Lys	Ser	Cys	Gly	Met	Ile	Tyr	Thr	Ala	Ser	Asn
385					390					395					400
Pro	Glu	Asp	Glu	Met	Gln	His	Val	Gln	His	His	His	Arg	Phe	Leu	Glu
				405					410					415	
G1 y	He	Lys	Tyr	Val	Gly	Trp	Lys	Lys	Glu	Arg	Val	Val	Ala	Glu	Phe
			420					425					430		
Trp	Asp	Gly	Lys	He	Val	Leu	Val	Leu	Pro	His	Asp	Pro	Ser	Phe	Ala
		435					440					445			
He	Lys	Lys	Val	Glu	Asp	Val	Gln	Glu	Leu	Val	Asp	Asn	Glu	Leu	Gly
	450					455					460				
	Gln	Gln	Val	Val	Pro	Lys	Cys	Pro	Asn	Lys	lle	Lys	Thr	Phe	
465					470					475					480
Phe	He	Ser	Asp		Lys	Arg	Va]	Va]		Cys	Leu	He	Ala	Glu	Pro
				485				_	490					495	
He	Lys	Gln		Phe	Arg	Val	Leu		Glu	Pro	He	Gly		Glu	Ser
Б	C	C	500	C 3	C	D		505	T	63	C	C	510	V -	D
Pro	Ser		lhr	61u	Cys	Pro		Ala	Irp	GIn	Cys		Asp	Val	Pro
C1	D.	515	V. 1	C- ·	C1	7.1	520	Α.	т 1	т.	W. 3	525	۸ -	1	1.
GIU	rro	ALA	val	LVS	GIV	He	Ser	Arg	He	Trn	val	rne	Arg	Len	LVS

Arg Arg Lys Arg Ile Ala Arg Arg Leu Val Asp Thr Leu Arg Asn Cys Phe Met Phe Gly Cys Phe Leu Ser Thr Asp Glu Ile Ala Phe Ser Asp Pro Thr Pro Asp Gly Lys Leu Phe Ala Thr Lys Tyr Cys Asn Thr Pro Asn Phe Leu Val Tyr Asn Phe Asn Ser <210> 4069 <211> 125 <212> PRT <213> Homo sapiens <400> 4069 Met Gln Leu Arg Phe Arg Gly His Ser Ile Asn His Ser Leu Tyr Met His Asn Ser Ser Gly Gly Ser Arg Val 11e 11e Ala Ser Arg Ser Gln lle Ser Tyr Phe Phe lle Asn lle Glu Thr Lys Leu Trp Ser Gln Ile Val Asn Glu Arg Lys Ile His Tyr Ile Leu Glu Lys Glu Ala Asn Asp Val Asn Lys Asp Glu Glu Val Glu Asp Gly His Arg Asn Cys Gln Arg Arg Arg Trp Arg Lys Met Arg Pro Arg Gly Glu Thr Glu Ser Thr His Phe Ser Val Gly Phe Pro Ser Met Ser Pro Lys Ser Lys Gly Gln Pro

Gly Ala Ser Pro Gln 11e 11e Leu Ala Ala Asp Ser Gln

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<210> 4070
<211> 179
<212> PRT
<213> Homo sapiens
<400> 4070
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<400> 4070 Met Gly Pro Ala Ala Ala Pro Gly His Leu Ser Ser Gly Gly Cys Cys 10 Val Leu Pro Leu Pro Ser Val Leu Pro Pro Ser Ile Ser Ala Val Pro 20 25 30 Gly Leu Ala Leu Leu Pro Gly Arg Trp Thr Leu Pro Ser Gln Trp Thr 40 Arg Arg Leu Ala Ala Ser Ala Pro Pro Asp Arg Ser Pro Tyr Leu Ser 50 55 60 Pro Arg Leu Gln Ser Pro Val Pro Thr Ala Ala His Val Ala Ser Phe 75 65 Gln Ala Ala Arg Ala Ser Gly Thr Ser Gly Ala Ser Thr Val Ala 90 Cys Gly His Gly Pro Arg Ser Phe Ser Pro Leu Ser Ser Ser Arg 100 105 110 Ala Gly Pro Arg Val Ser Pro Gln Pro Asp Trp Leu Cys Leu Gln Met 120 125 Met Leu Val Thr Gln Leu Phe Val Ser Arg Asn Ala Gly Gly Ile Ala 130 135 . 140 Val Pro Phe Ser Gly Ser Ala Ala Phe Ser Leu Ala Val 11e Pro Pro 150 155 Gly Glu Ala His Leu Gly Arg Phe Trp Ala Thr Ala Val Trp Leu His 165 170

<210> 4071

Ser Gly Gln

<211> 157

<212> PRT

<213> Homo sapiens

<400> 4071 Met Gly Gly Ala Trp Ser Glu Ala Gln Glu Ala Asp Gly Gly Gly His 1 5 10 Gln Gly Gln Glu Ala Ser Asn Pro Pro Leu Arg Ala Thr Pro Ser Leu 25 Pro Gly Gly Gln Cys Leu Tyr Gly Leu Lys Ala Gly Pro Trp Gly Thr 40 Thr Ala Asp Phe Cys Phe Asn Trp Lys Gln Thr Gly 11e Asn Phe Pro 55 60 50 Tyr Lys Tyr Ser Ala Asn Asn Leu Glu Val Tyr Lys Gly Lys Ser Glu 70 75 Gly Ser Thr Gln Pro Ser Cys Pro Thr Phe Thr Leu Thr Gly Asn Gln 85 90 Leu Leu Val Val Leu Val Gly Pro Ser Arg His Phe Met Cys Ala Phe 105 Thr Asn Ile Met His Ser Tyr Val Phe Leu Lys Gly Lys Gln Arg Pro 120 Gly Ala Val Ala Asp Ala Cys Asn Pro Ser Thr Leu Gly Gly Arg Gly 130 135 140 Gly Arg Ile Thr Arg Ser Gly Asp Gly Asp His Pro Gly 150 155 145 <210> 4072 <211> 121 <212> PRT <213> Homo sapiens <400> 4072 Met Ser Arg Trp Leu Trp Pro Trp Ser Asn Cys Val Lys Glu Arg Val 10

Cys Arg Tyr Leu Leu His His Tyr Leu Gly His Phe Phe Gln Glu His

Leu Ser Leu Asp Gln Leu Ser Leu Asp Leu Tyr Lys Gly Ser Val Ala

40

25

30

45

20

 Leu Arg Asp I1e
 His Leu Glu I1e
 Trp Val Arg Ser Gln Ala Arg Val

 50
 55
 55
 60

 Gln Glu Val Cys Glu Arg Gly Ala Gly Val Asn Gly Val Thr Ala Gly
 65
 70
 75
 80

 Ala Gly Gly Arg Leu Arg Gly Leu His Arg Gly Gly Gly Arg Ala Leu Gly
 85
 90
 95

 Cys Ser Ala His Arg Pro Leu His Ser Ala Arg Val Arg Pro Pro Ala
 110

 His Leu Ala Ala Pro Pro Gly Ser Arg
 120

<210> 4073

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4073

Met Arg Ser Leu Leu Ile Leu Ser Trp Asp Ser Trp Ser Ile Ala Phe 1 5 10 15 Leu Ala Gly Asn Leu Cys Gly Gln Trp His Leu Cys Pro Ser Phe Ala 25 Trp Ala Ser Arg Ser Arg His Arg Cys Leu Leu Pro Ala Arg Leu Gln 35 40 Leu Asp Gln Val Tyr Cys Lys Gln Ala Ala Ser Thr Ala Gly Thr Gly 55 60 Glu His Gly Gly Gly Gln Lys Leu Gly Asp Thr Arg Asn Cys Arg Ala 70 75

Pro Lys Arg Val Ser Gln Ala Cys 11e Arg Asn Leu Leu Gly Leu Gly 85 90 95

Ser Leu Lys Gly His Ser Ser Ser Leu Leu Leu Ser Ser Leu Leu Leu 100 105 110

Val Thr Arg Asn Val Ala Ser Lys Gly Cys Val Ser Ala Leu Phe Val 115 120 125

Leu

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<212> PRT
<213> Homo sapiens
<400> 4074
Met Ala Asp Leu Leu Pro Phe Ala Val Pro Thr Lys Ser Asp Lys Thr
                  5
                                     10
Leu Leu Val Trp Glu Leu Ser Ser Gly Pro Thr Ala Asp Ala Leu Tyr
                                 25
Arg Gln Gly Leu Ala Val Leu Leu Met Leu Val Leu Asn Ser Trp Pro
         35
                             40
                                                 45
Gln Ala Ile Leu Pro Ser Trp Pro Pro Arg Glu Gln Asp Tyr Arg Leu
                         55
Phe Leu Leu Glu Val Val Glu Glu Glu Glu Ser Thr Ser Asp Glu
                     70
                                         75
Gln Ile Ala Gly Gly Cys Ser His Ser His Val Ser Ala Lys Lys Ser
                 85
                                     90
                                                          95
Glu Phe Ser Ser His Gln Asn Gln Gly Lys Asp Asn Ala Ala Val Met
                                105
Val Gln Ser Cys Leu Glu Gly Glu Thr Ala Leu Val Phe Pro Ala Leu
                            120
                                                 125
        115
Glu lle Asn Val Val Pro Leu Asn His Lys Asp Cys Pro Trp Gly Glu
                        135
Glu Gln Arg Pro Gly Trp Thr Gly Asp His Ala Arg Ser Arg Ala Leu
                    150
                                        155
Gln Lys Cys Gln Ser Glu Gly Ser Gly His Arg Leu Gly Pro Phe Gly
                165
                                    170
                                                         175
Met Met Gly Lys Phe Ala Lys Val Arg Arg Gln Glu Leu Gly Ser Ser
                                185
Leu Lys Gln Arg Gly Phe Gln Ala Ala Glu Glu Pro Glu Asp Pro Ala
        195
                            200
                                                 205
Ser Ala Pro Asp Thr Val Leu Asp His Leu Phe Pro Phe Pro Ser Cys
    210
                        215
                                            220
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<210> 4074 <211> 226 Leu Phe

225

<210> 4075

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4075

Met Lys Pro Thr Glu Gly Trp Lys Trp Thr Leu Asn Ser Arg Lys Ala
1 5 10 15

Arg Glu Trp Thr Pro Arg Asp IIe Glu Ala Gln Thr Gln Lys Pro Glu 20 25 30

Pro Pro Glu Ser Ala Glu Lys Leu Leu Glu Ser Pro Gly Val Glu Ala 35 40 45

Gly Glu Gly Glu Ala Glu Lys Glu Glu Ala Gly Ala Gln Gly Arg Pro
50 55 60

Leu Arg Ala Leu Gln Asn Cys Cys Ser Val Pro Ser Pro Leu Pro Pro 65 70 75 80

Glu Asp Ala Gly Thr Gly Gly Leu Arg Gln Gln Glu Glu Glu Ala Val 85 90 95

Glu Leu Gln Pro Pro Pro Pro Ala Pro Leu Ser Pro Pro Pro Pro Ala 100 105 110

Pro Thr Ala Pro Gln Pro Pro Gly Asp Pro Leu Met Ser Arg Leu Phe
115 120 125

Tyr Gly Val Lys Ala Gly Pro Gly Val Gly Ala Pro Arg Arg Ser Gly 130 135 140

Ala Thr Pro Thr Ser Pro Ala Thr Val Asp Ala Ala Val Pro Gly Ala 165 170 175

Gly Lys Lys Arg Tyr Pro Thr Ala Glu Glu Ile Leu Val Leu Gly Gly 180 185 190

Tyr Leu Arg Leu Ser Arg Ser Cys Leu Ala Lys Gly Ser Pro Glu Arg 195 200 205

His	His	Lys	Gln	Leu	Lys	lle	Ser	Phe	Ser	Glu	Thr	Ala	Leu	Glu	Thr
	210					215					220				
Thr	Tyr	Gln	Tyr	Pro	Ser	Glu	Ser	Ser	Val	Leu	Glu	Arg	Arg	Arg	Ala
225					230					235					240
Lys	Leu	Gly	Leu	Ser	Pro	Gly	Glu	Pro	Ser	Pro	Val	Leu	Gly	Thr	Val
				245					250					255	
G]u	Ala	Gly	Pro	Pro	Asp	Pro	Asp	Glu	Ser	Ala	Val	Leu	Leu	Glu	Ala
			260					265					270		
Ile	Gly	Pro	Val	His	Gln	Asn	Arg	Phe	lle	Arg	Gln	Glu	Arg	Gln	Gln
		275					280					285			
Gln	Gln	Gln	Gln	Gln	Gln	Arg	Ser	Glu	Glu	Leu	Leu	Ala	Glu	Arg	Lys
	290					295					300				
Pro	Gly	Pro	Leu	Glu	Ala	Arg	Glu	Arg	Arg	Pro	Ser	Pro	Gly	Glu	Met
305					310					315					320
Arg	Asp	Gln	Ser	Pro	Lys	Gly	Arg	Glu	Ser	Arg	Glu	Glu	Asp	Glu	Glu
				325					330					335	
Glu	Leu	Leu	Leu	Leu	Gln	Pro	Glu	Leu	Gln	Gly	Gly	Leu	Arg	Thr	Lys
			340					345					350		
Ala	Leu	Ile	Val	Asp	Glu	Ser	Cys	Arg	Arg						
		355					360								

<210> 4076

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4076

 Met
 Pro
 Leu
 Pro
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 Thr
 11e
 Gly
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 Leu
 Leu
 Ser
 Tyr
 Pro
 Lys

 Pro
 Phe
 Asp
 Thr
 Ala
 His
 Trp
 Lys
 Met
 Glu
 Phe
 Met
 Leu
 His
 Gly

 Pro
 Phe
 Ala
 Thr
 Cys
 Leu
 Thr
 Phe
 Thr
 Val
 Ser
 Met
 Leu
 Pro
 Asn

 Asn
 35
 40
 45
 45

 Ser
 Gly
 Ala
 Gly
 Ala
 Pro
 Ala
 Ser
 Leu
 His
 Pro
 Pro
 Pro
 Phe
 Cys
 Ile

 50
 55
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Arg Gln Gly Ile Ser Ser Pro Thr Pro Thr Ala Ser Leu Pro Lys Cys Leu His Cys Gln Leu Lys Leu Pro Ala Ala His Phe Asn Pro Ala Leu Thr Gly Thr Trp Lys Ser Ser His His Thr Ser Ile Phe Pro Ser Thr Ser Leu Phe 

<210> 4077

<211> 515

<212> PRT

<213> Homo sapiens

<400> 4077 Met Val Leu Ser Gln Glu Glu Pro Asp Ser Ala Arg Gly Thr Ser Glu Ala Gln Pro Leu Gly Pro Ala Pro Thr Gly Ala Ala Pro Pro Pro Gly Pro Gly Pro Ser Asp Ser Pro Glu Ala Ala Val Glu Lys Val Glu Val Glu Leu Ala Gly Pro Ala Thr Ala Glu Pro His Glu Pro Pro Glu Pro Pro Glu Gly Gly Trp Gly Trp Leu Val Met Leu Ala Ala Met Trp Cys Asn Gly Ser Val Phe Gly Ile Gln Asn Ala Cys Gly Val Leu Phe Val Ser Met Leu Glu Thr Phe Gly Ser Lys Asp Asp Asp Lys Met Val Phe 

Cys Pro Ile Val Ser Val Phe Thr Asp Leu Phe Gly Cys Arg Lys Thr 

Lys Thr Ala Trp Val Gly Ser Leu Ser Met Gly Met Ile Phe Phe Cys

Ala Val Val Gly Ala Ala Val Gly Phe Val Gly Leu Met Ser Ser Ser 

Phe	Val	Ser	Ser	Ile 165	Glu	Pro	Leu	Tyr	Leu 170	Thr	Tyr	G1 y	Ile	Ile 175	Phe
Ala	Cys	Gly	Cys	Ser	Phe	Ala	Tyr	Gln	Pro	Ser	Leu	Val	Ile	Leu	G1 y
			180					185					190		
His	Tyr	Phe	Lys	Lys	Arg	Leu	Gly	Leu	Val	Asn	Gly	11e	Val	Thr	Ala
		195					200					205			
Gly	Ser	Ser	Val	Phe	Thr	Ile	Leu	Leu	Pro	Leu	Leu	Leu	Arg	Val	Leu
	210					215					220				
He	Asp	Ser	Val	Gly	Leu	Phe	Tyr	Thr	Leu	Arg	Val	Leu	Cys	Ile	Phe
225					230					235					240
Met	Phe	Val	Leu	Phe	Leu	Ala	Gly	Phe	Thr	Tyr	Arg	Pro	Leu	Ala	Thr
				245					250					255	
Ser	Thr	Lys	Asp	Lys	Glu	Ser	G1 y	G1 y	Ser	Gly	Ser	Ser	Leu	Phe	Ser
			260					265					270		
Arg	Lys		Phe	Ser	Pro	Pro	Lys	Lys	He	Phe	Asn	Phe	Ala	He	Phe
		275					280					285			
Lys		Thr	Ala	Tyr	Ala		Trp	Ala	Val	Gly		Pro	Leu	Ala	Leu
	290	_				295					300				
	Gly	Tyr	Phe	Val		Tyr	Val	His	Leu		Lys	His	Val	Asn	
305	DI	C1	Λ	C1	310	Δ	1	C1	V 1	315	1	и.	C	т э	320
Arg	Pne	GIN	ASP		Lys	Asn	Lys	Glu		vai	Leu	мет	Cys		бГу
Vol.	Thr	Sor	Cly	325	C1.,	Ana	Lou	Lau	330	C1	120	T1.	110	335	т
val	1111	261	340	vai	Gry	AI g	Leu	Leu 345	rne	GTy	M g	116	350	Asp	ı yı
Val	Pro	Glv		lvs	lvs	Va1	Tyr	Leu	Gln	Val	Len	Ser		Phe	Pho
701	110	355	741	Lys	Lyo	,01	360	Lea	0111	741	Lcu	365	THE	THE	The
lle	Gly	Leu	Met	Ser	Met	Met	11e	Pro	Leu	Cys	Ser	11e	Phe	Gly	Ala
	370					375					380				
Leu	He	Ala	Val	Cys	Leu	He	Met	G1 y	Leu	Phe	Asp	Gly	Cys	Phe	Пе
385					390					395					400
Ser	He	Met	Ala	Pro	He	Ala	Phe	Glu	Leu	Val	Gly	Ala	Gln	Asp	Val
				405					410					415	
Ser	Gln	Ala	He	Gly	Phe	Leu	Leu	Gly	Phe	Met	Ser	Пe	Pro	Met	Thr
			420					425					430		
Val	Gly		Pro	He	Ala	Gly		Leu	Arg	Asp	Lys		Gly	Ser	Tyr
		435					440					445			

Asp Val Ala Phe Tyr Leu Ala Gly Val Pro Pro Leu Ile Gly Gly Ala Val Leu Cys Phe Ile Pro Trp Ile His Ser Lys Lys Gln Arg Glu Ile Ser Lys Thr Thr Gly Lys Glu Lys Met Glu Lys Met Leu Glu Asn Gln Asn Ser Leu Leu Ser Ser Ser Ser Gly Met Phe Lys Lys Glu Ser Asp Ser Ile Ile <210> 4078 <211> 165 <212> PRT <213> Homo sapiens <400> 4078 Met Gly Trp Gly Gly Val Gly Gln Met Glu Gln Gln Pro Gly Glu Arg

Val Asp Leu Gln Thr Thr Gln Gln Ala Leu Ala Val Ser Ser Met Arg Asn Arg Arg Asp Ile His Gly Thr Pro Cys Arg Lys Glu Glu Glu Glu Lys Ser Tyr Leu Leu Gly Pro Tyr Pro Gly Lys Phe Pro Thr Leu Val Leu Phe Thr Gly Cys Cys Pro Glu Arg Gln Ile Leu Ser Ser Pro Ser His Glu Arg Gly Asn Gln Gly Cys Lys Gln Glu Ser Asp Ser Ala Lys Val Thr Gln Leu Glu Ser Gly Arg Asp Gly Thr Gln His Asp Ile Ser Leu Gln Ser Trp Gln Leu Leu Arg Ala Leu Pro Leu Leu Asn Arg Asp Leu Pro Gly Met Thr Arg Arg Pro Ser Gly Phe Ser Gly Leu Val Leu

Arg Thr Phe Ile Arg Phe Phe Ser Lys Tyr Leu Leu Ser Ala Thr Val 150 155 160 Cys Gln Ala Leu Phe 165 <210> 4079 <211> 272 <212> PRT <213> Homo sapiens <400> 4079 Met Gln Ser Asn Met Thr Asn Thr Val Val Arg Thr Thr Leu Arg Asn 1 5 15 Asp Leu Ser Gln Glu Gly Ile Ile His His Leu Lys Ile Leu Ser Pro 25 lle Tyr Cys Ala Phe Gln Asn Asp Leu Leu Thr Ser Ser Gly Phe Thr 40 Leu Glu Trp Gly Val Tyr Thr Ile Ile Glu Asp Leu His Gly Ala Gly 50 55 60 Asn Phe Val Thr Glu Met Gln Leu Phe Ile Gly Asp Ser Pro Ile Pro 70 75 Gln Asn Tyr Ser Val Ser Ala Ser Asp Asp Val Arg Ile Glu Val Gly 85 90 Leu Tyr Arg Gln Lys Ser Asn Leu Lys Val Val Leu Thr Glu Cys Trp 105 Ala Thr Pro Ser Ser Asn Ala Arg Asp Pro Ile Thr Phe Ser Phe Ile

120

135

130

Asn Asn Ser Cys Pro Val Pro Asn Thr Tyr Thr Asn Val lle Glu Asn

Gln Asn Ser Glu Thr Ser Ala Thr His Gln Met Ser Trp Gly Pro Leu 200 205 lle Arg Ser Glu Gly Glu Pro Pro His Ala Glu Ala Gly Leu Gly Ala 215 220 Gly Tyr Val Val Leu Ile Val Val Ala Ile Phe Val Leu Val Ala Gly 230 235 240 Thr Ala Thr Leu Leu Ile Val Arg Tyr Gln Arg Met Asn Gly Arg Tyr 250 245 Asn Phe Lys Ile Gln Ser Asn Asn Phe Ser Tyr Gln Val Phe Tyr Glu 260 265 270

<210> 4080

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4080

Met Ala Gly Ala Gly Val Gly Gly Trp Val Pro Gly Ala Trp Leu Gln
1 5 10 15

Gly Cys Pro Ser Val Leu Arg Pro Leu Val Ser Leu Pro Ser Ser Ser 20 25 30

Pro Thr Leu Glu Phe Leu Leu Phe Leu Ile Leu Val Met Phe Leu Gly
35 40 45

Phe Ile Val Leu Leu Arg Glu Val Lys Leu His His Gln Asp Trp 50 55 60

Ile Ala Phe Ala Phe Gln Leu Phe lle His Pro Leu Ala Trp Thr Arg
65
70
75
80

Thr Arg Ala Gly 11e Phe Gly Cys Phe Arg Phe Ala Arg Cys Ser Ile
85 90 95

Phe Ala Gln Val Leu Arg Leu Glu Met His Phe Lys Leu Ser Arg Leu 100 105 110

Ala Gly Lys Met Gln Asp Ala Leu Trp Leu His Lys Cys Cys Thr Ser 115 120 125

Gly Val Gly Ala Gly

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<211> 566
<212> PRT
<213> Homo sapiens
<400> 4081
Met Val Arg Glu Lys Tyr Ile Arg Pro Leu Thr Thr Glu Glu Trp Val
                  5
                                     10
Glu Lys Met Met Asp Ala Asp Pro Glu Phe Pro Pro Asp Phe Ala Glu
                                 25
Ala Phe Glu Ser Gln Leu Ser Leu Ser Asp Ser Pro Ser Leu Cys Arg
        35
                             40
                                                 45
Pro Val Tyr Ser Lys Lys Gly Leu Glu His Lys Ala Asp Leu Gln Gln
                         55
His Leu Phe Pro Val Pro Pro Gly His Leu Glu Cys Thr Pro Glu Ser
                     70
                                         75
Leu Trp Lys Glu Leu Ser Leu Gln His Glu Gly Leu Lys Glu Leu Ile
                                                          95
                 85
                                     90
His Lys Gln Met Arg Pro Phe Ser Gln Gly Ile Val Ile Leu Ser Arg
                                105
Ser Trp Ala Val Asp Leu Asn Leu Gln Glu Lys Pro Gly Val Ile Cys
        115
                                                 125
                            120
Asp Ala Leu Leu lle Ala Gln Asn Ser Thr Pro lle Leu Tyr Thr lle
                        135
Leu Arg Glu Gln Asp Ala Glu Gly Gln Asp Tyr Cys Thr Arg Thr Ala
                    150
                                        155
Phe Thr Leu Lys Gln Lys Leu Val Asn Met Gly Gly Tyr Thr Gly Lys
                165
                                    170
                                                         175
Val Cys Val Arg Ala Lys Val Leu Cys Leu Ser Pro Glu Ser Ser Thr
                                185
Glu Ala Leu Glu Ala Ala Val Ser Pro Met Asp Tyr Pro Ala Ser Tyr
        195
                            200
                                                 205
Ser Leu Ala Gly Thr Gln His Met Glu Ala Leu Leu Gln Ser Leu Val
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<210> 4081

Ile	Val	Leu	Leu	G1y	Phe	Arg	Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys
225					230					235					240
Glu	Val	Leu	Asn	Leu	Leu	Thr	Ala	Gln	Gln	Tyr	Glu	He	Phe	Ser	Arg
				245					250					255	
Ser	Leu	Arg	Lys	Asn	Arg	Glu	Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser
			260					265					270		
Gly	Lys	Thr	lle	Met	Ala	Met	Lys	He	Met	Glu	Lys	lle	Arg	Asn	Val
		275					280					285			
Phe	His	Cys	Glu	Ala	His	Arg	Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro
	290					295					300				
Leu	Arg	Asn	Phe	Ile	Ser	Val	Arg	Asn	He	Cys	Arg	Ala	Glu	Thr	Arg
305					310					315					320
Lys	Thr	Phe	Leu	Arg	Glu	Lys	Phe	Glu	His	He	G1n	His	He	Val	He
				325					330					335	
Asp	Glu	Ala	Gln	Asn	Phe	Arg	Thr	Glu	Asp	Gly	Asp	Trp	Tyr	Arg	Lys
			340					345					350		
Ala	Lys	Thr	Ile	Thr	Gln	Arg	Glu	Lys	Asp	Cys	Pro	Gly	Val	Leu	Trp
		355					360					365			
He	Phe	Leu	Asp	Tyr	Phe	Gln	Thr	Ser	His	Leu	Gly	His	Ser	Gly	Leu
	370					375					380				
Pro	Pro	Leu	Ser	Ala	Gln	Tyr	Pro	Arg	Glu	Glu	Leu	Thr	Arg	Val	Val
385					390					395					400
Arg	Asn	Ala	Asp	Glu	11e	Ala	Glu	Tyr	lle	Gln	Gln	Glu	Met	Gln	Leu
				405					410					415	
He	He	Glu	Asn	Pro	Pro	He	Asn	He	Pro	His	Gly	Tyr	Leu	Ala	He
			420					425					430		
Leu	Ser	Glu	Ala	Lys	Trp	Val	Pro	Gly	Va]	Pro	Gly	Asn	Thr	Lys	lle
		435					440					445			
Пе	Lys	Asn	Phe	Thr	Leu	Glu	Gln	lle	Val	Thr	Tyr	Val	Ala	Asp	Thr
	450					455					460				
Cys	Arg	Cys	Phe	Phe	Glu	Arg	Gly	Tyr	Ser	Pro	Lys	Asp	Val	Ala	Val
465					470					475					480
Leu	Val	Ser	Thr	Val	Thr	Glu	Val	Glu	Gln	Tyr	Gln	Ser	Lys	Leu	Leu
				485					490					495	
Lys	Ala	Met	Arg	Lys	Lys	Met	Val	Val	Gln	Leu	Ser	Asp	Ala	Cys	Asp
			500					505					510		

Met Leu Gly Val His Ile Val Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr 11e Phe Leu 

<210> 4082

<211> 208

<212> PRT

<213> Homo sapiens

<400> 4082 Met Leu Met Leu Phe Val Phe Gly Val Leu Leu His Glu Val Ser Leu Ser Gly Gln Asn Glu Ala Pro Pro Asn Thr His Ser Ile Pro Gly Glu Pro Leu Tyr Asn Tyr Ala Ser Ile Arg Leu Pro Glu Glu His Ile Pro Phe Phe Leu His Asn Asn Arg His 11e Ala Thr Val Cys Arg Lys Asp Ser Leu Cys Pro Tyr Lys Lys His Leu Glu Lys Leu Lys Tyr Cys Trp Gly Tyr Glu Lys Ser Cys Lys Pro Glu Phe Arg Phe Gly Tyr Pro Val Cys Ser Tyr Val Asp Met Gly Trp Thr Asp Thr Leu Glu Ser Ala Glu Asp lle Phe Trp Lys Gln Ala Asp Phe Gly Tyr Ala Arg Glu Arg Leu

Glu Glu Met His Val Leu Cys Gln Pro Lys Glu Thr Ser Asp Ser Ser

Leu Val Cys Ser Arg Tyr Leu Gln Tyr Cys Arg Ala Thr Asn Leu Tyr

Leu Asp Leu Arg Asn Ile Lys Arg Asn His Asp Arg Phe Lys Glu Asp Phe Phe Gln Ser Gly Glu Ile Gly Gly His Cys Lys Leu Asp Ile Arg Thr Leu Thr Ser Glu Gly Arg Arg Lys Ser Pro Leu Gln Ser Trp Cys 

<210> 4083

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4083

Met Cys Arg Arg Val Leu Ser Gln Ala Val Trp Gly Ser Tyr Gly Pro Ser Pro Glu Pro Tyr Pro Thr Trp Ser Leu Gly Asp Gly Gln Gln Val Pro Gly His Cys Gly Val Cys Gln Leu Leu Gly Ser Phe Pro Gly Met Pro Leu Gly Ala Trp Glu Arg Trp Ser Gly Trp Ala Val Phe Pro Ala Ala Gly Ser Gly Leu Gly Glu Ala Ala Trp Val Gly Leu Pro Ser Asp Pro Gly Leu Ser Arg Cys Arg Phe Gly Ile Gly Arg Gly Gly Met Gly Gly Pro Pro Ser Arg His Arg lle Phe Pro Ala Ala Ser Ser Gly Pro Gly Glu Ala Ala Trp Val Gly Leu Pro Pro Asp Thr Gly Ser Phe Leu Leu Gln Val Trp Asp Gln Glu Arg Arg His Gly Trp Ala Ser Leu Leu Thr Gln Val Ser Pro Ala Ala Gly Ser Gly Leu Gly Glu Ala Met Trp 

Val Gly Leu Thr Gln Gly Leu Ser Gly Cys Arg Phe Arg Thr Gly Arg

Gly Gly Val Gly Gly Pro Pro Ser 180

<210> 4084

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4084

Met Tyr Val Cys Leu Tyr Glu Thr Phe Ser Ser Leu Phe Ser Leu Leu

1 5 10 15

Arg Glu Lys 11e Ser Leu Asn Cys Phe Ser Phe Ser Phe Leu Val Glu 20 25 30

Tyr His Leu His Pro Leu Phe Leu Ile Ala Ser Leu Pro Met Phe Phe 35 40 45

Pro Gln Lys Ser Leu Phe Asp Ile Ile Ser Lys Ile Asp Leu Met Val
50 55 60

Asn Ser Gly Lys Leu Gly Thr Thr Val Lys Pro Lys Ser Leu Val Thr 65 70 75 80

Ser Ser Ser Gly Ala Leu Lys Lys Gln His Lys Lys Pro Phe Asp Ala 85 90 95

Met Asn Asn Ile Val Ala Asn Leu Leu Leu Asn Leu Thr Arg 100 105 110

<210> 4085

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4085

Met Leu Pro Leu Glu Pro Tyr Leu Thr Gln Thr Ser Ala Val Pro Gln
1 5 10 15

Met Ser His Phe Met Cys His Ser Pro Thr His Lys Pro Gln Gly Leu

			20					25					30		
Leu	Pro	Trp	Ala	Pro	Phe	His	Gln	Ala	Ser	Val	Ser	Leu	Tyr	Pro	Ile
		35					40					45			
Ser	Pro	Trp	Pro	Ser	Glu	Ser	Val	Cys	Pro	Pro	Thr	Cys	Pro	Gly	G1 y
	50					55					60				
Ala	Ser	Cys	Trp	Phe	Pro	Ala	G1 y	Asn	Ala	Trp	Asp	Arg	Val	Glu	Leu
65					70					75					80
Gly	Phe	Leu	G1y	Phe	Gly	Ala	Gly	Gly	Val	Ser	Ile	Ala	Val	Pro	G1 y
				85					90					95	
Phe	Pro	Leu	Ser	Cys	Gly	Gln	Gly	Cys	Cys	Ala	Gly	Gly	Trp	Leu	G1 y
			100					105					110		
His	Gly	Ala	Arg	Phe	Pro	Ala	Lys	Leu	Arg	Ala	Phe	Pro	Gln	Val	He
		115					120					125			
Arg	Arg	Gly	Trp	Leu	Thr	He	Asn	Asn	11e	Ser	Leu	Met	Lys	Gly	Gly
	130					135				٠	140				
Ser	Lys	Glu	Tyr	Trp	Phe	Val	Leu	Thr	Ala	Glu	Ser	Leu	Ser	Trp	Tyr
145					150					155					160
Lys	Asp	Glu	Glu	Glu	Lys	Glu	Lys	Lys	Tyr	Met	Leu	Pro	Leu	Asp	Asn
				165					170					175	
Leu	Lys	lle	Arg	Asp	Val	Glu	Lys	Gly	Phe	Met	Ser	Asn	Lys	His	Val
			180					185					190		
Phe	Ala	Ile	Phe	Asn	Thr	Glu	Gln	Arg	Asn	Val	Tyr	Lys	Asp	Leu	Arg
		195					200					205			
Gln	11e	Glu	Leu	Ala	Cys	Asp	Ser	Gln	Glu	Asp	Val	Asp	Ser	Trp	Lys
	210					215					220				
Ala	Ser	Phe	Leu	Arg	Ala	Gly	Val	Tyr	Pro	Glu	Lys	Asp	Gln	Val	Arg
225					230					235					240
Ser	Arg	Pro	Ala	Gln	Pro	Gly	Pro	Glu	Pro	Pro	Pro	Gly	Arg	Gly	Ser
				245					250					255	
Arg	Ala	Gly	Phe	Pro	G1n	Asp	Arg	Ser	Phe	Ser	Gly	His	Val	Ser	Arg
			260					265					270		
Glu	Ser	Leu	Lys	Ser	Cys	Ser	Arg	Cys	Pro	Leu	Glu	G1n	Ala	Lys	Glu
		275					280					285			
Lys	Leu	Gly	Val	Leu	Cys	His	Gln	Gly	Pro	Glu	Ser	Ser	Leu	Thr	Glu
	290					295					300				
Ala	Ser	Asp	Arg	Gly	Thr	Gln	Gly	Met	Gly	Ser	His	Leu	Leu	Cys	Ser

Pro Leu Phe Ser Pro Ser Ile Leu Arg <210> 4086 <211> 550 <212> PRT <213> Homo sapiens <400> 4086 Met Tyr Ser Thr Asp Glu Asn Leu lle Leu Ser Pro Leu Leu Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val Val Gly Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly Ile His Leu Thr Lys Glu Glu Leu Lys Leu Asn Ile Arg Pro Leu Leu Arg Leu Val Cys Lys Lys Phe Phe Gly Glu Phe Thr Gly Phe Val Asp Met Cys Val Gln His Ile Pro Ser Pro Lys Val Gly Ala Lys Pro Lys Ile Glu His Thr Tyr Thr Gly Gly Val Asp Ser Asp Leu Gly Glu Ala Met Ser Asp Cys Asp Pro Asp Gly Pro Leu Met Cys His Thr Thr Lys Met Tyr

Ser Thr Asp Asp Gly Val Gln Phe His Ala Phe Gly Arg Val Leu Ser

		195					200					205			
Gly	Thr	lle	His	Ala	Gly	Gln	Pro	Val	Lys	Val	Leu	Gly	Glu	Asn	Tyr
	210					215					220				
Thr	Leu	Glu	Asp	Glu	Glu	Asp	Ser	Gln	He	Cys	Thr	Val	Gly	Arg	Leu
225					230					235					240
Trp	lle	Ser	Val	Ala	Arg	Tyr	His	He	Glu	Va1	Asn	Arg	Val	Pro	Ala
				245					250					255	
Gly	Asn	Trp	Val	Leu	Ile	Glu	Gly	Val	Asp	Gln	Pro	Ile	Val	Lys	Thr
			260					265					270		
Ala	Thr	Ile	Thr	Glu	Pro	Arg	Gly	Asn	Glu	Glu	Ala	Gln	Ile	Phe	Arg
		275					280					285			
Pro	Leu	Lys	Phe	Asn	Thr	Thr	Ser	Val	He	Lys	He	Ala	Val	Glu	Pro
	290					295					300				
Val	Asn	Pro	Ser	Glu	Leu	Pro	Lys	Met	Leu	Asp	Gly	Leu	Arg	Lys	Va1
305					310					315					320
Asn	Lys	Ser	Tyr	Pro	Ser	Leu	Thr	Thr	Lys	Val	Glu	Glu	Ser	Gly	Glu
				325					330					335	
His	Val	Ile	Leu	Gly	Thr	Gly	Glu	Leu	Tyr	Leu	Asp	Cys	Val	Met	His
			340					345					350		
Asp	Leu	Arg	Lys	Met	Tyr	Ser	Glu	lle	Asp	Ile	Lys	Val	Ala	Asp	Pro
		355					360					365			
Val	Val	Thr	Phe	Cys	Glu	Thr	Val	Va]	Glu	Thr	Ser	Ser	Leu	Lys	Cys
-	370					375					380				
Phe	Ala	Glu	Thr	Pro	Asn	Lys	Lys	Asn	Lys	lle	Thr	Met	11e	Ala	Glu
385					390					395					400
Pro	Leu	Glu	Lys	Gly	Leu	Ala	Glu	Asp	He	Glu	Asn	Glu	Val	Val	Gln
				405										415	
He	Thr	Trp		Arg	Lys	Lys	Leu	-	Glu	Phe	Phe	Gln		Lys	Tyr
			420					425					430		
Asp	Trp		Leu	Leu	Ala	Ala	Arg	Ser	He	Trp	Ala		Gly	Pro	Asp
		435					440					445			
Ala		Gly	Pro	Asn	He		Val	Asp	Asp	Thr		Pro	Ser	Glu	Val
	450					455					460			- "	
	Lys	Ala	Leu	Leu		Ser	Val	Lys	Asp		He	Va]	GIn	G1 y	
465	an.	0.7	æ.		470		Б	_		475		0			480
GIn	Irp	GIy	Thr	Arg	Glu	GIy	Pro	Leu	Cys	Asp	Glu	Cys	Lys	Ser	Thr

485 490 495 Ser Thr Pro Pro Pro Gln Ser Ser Arg Val Leu Ala Ala Arg His Met 500 505 510 Ser Gly Met Gly Ser Pro Ser Leu Gly Phe Gly Arg Arg Ser Ser Leu 515 520 525 Gly Tyr Thr Gly Pro Ser Gln Val Leu Gly Gln Leu Leu Pro Phe Ser 535 540 Phe Leu Ile Leu Val Val 545 550

<210> 4087

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4087

Met Pro Arg Gly Val Gln Ile Lys Lys Arg Ala Cys Ala Gln Met Trp

1 5 10 15

Ala Gl<br/>n Val Ser Gl<br/>n Arg Gly Lys Ser Ser Phe Tr<br/>p Pro Ser Leu Gl<br/>n 20 25 30 30

His Ala Leu Gly Pro Ser Asn Ile Phe Lys Ile Arg Lys Glu Leu Phe 35 40 45

Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr 11e Phe Phe Ala Asn 50 55 60

Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala 65 70 75 80

Gly Arg Ala Ala Leu Glu Thr Val Leu Ser lle Pro Cys Gly Glu Arg 85 90 95

Gly Thr Ala Ala Pro Ala Thr Arg 100

<210> 4088

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4088 Met Ala Leu Cys Asp Cys Gly Ser Pro Ser Ser Asn Gly Pro Ser Leu 1 5 10 Ser Tyr Phe Gln Tyr Ser Leu Pro Thr Pro Lys Gly Gly Lys Tyr Ala 25 Ile Asn Pro His Leu Thr Glu Asp Gln Arg Phe Pro Gln Leu Arg Leu 35 45 Ser Gln Lys Ala Arg Gln Lys Thr Asn Val Phe Ala Pro Asp Phe Ile 55 Ala Gly Val Ser Pro Phe Val Glu Asn Asp lle Ser Ser Arg Ser Ala 70 75 Thr Leu Gln Val Arg Asp Ser Thr Leu Gly Ala Gly Arg Arg Arg Leu 85 90 95 Asn Pro Asn Ala Ser Arg Lys Lys Phe Val Lys Lys Arg 100

105

<210> 4089

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4089

Met Asn Cys Thr Ala Pro Pro Gly Arg Gly Met Trp His Ala Ala Trp 10 Gln Leu Ser Leu Gly Leu Gly Ser Ala Gly Ile Ala Gly Val Val Ala 20 25 Leu Pro Ala Ala Pro Gly Arg Pro Arg Pro Gly Gln Asp Pro Arg Gly Gln Pro Asp Met Pro Arg Leu Gln Cys Leu Pro Arg Ser Leu Leu Ser 60 55

Ser Ser Gly Gln Gly Gly Arg Gly Leu Ser Gln Gly His Ser Gln Ala 65 70 75 80

Glu Cys Arg Asn Ser Leu Leu Lys Gly Ser Cys Ala Ser Val Pro Phe

Pro Trp Leu His Thr Gln Phe Leu Cys Ala Leu Ser Phe Phe Phe Phe Pro Gln Thr Trp Ser Arg Ser Val Thr Gln Ala Arg Val Gln <210> 4090 <211> 176 <212> PRT <213> Homo sapiens <400> 4090 Met Arg Gly Pro His Ser Ser Gln Trp Gly Ser Ile Asp Asp Gly Pro Val Ile Ser Gly Phe Pro Leu Lys Gly Ala Leu Phe Gly Thr Phe Phe Tyr Ser Ile Ser Leu Phe Ala Trp Ser His Ile Leu Leu Leu Phe Pro Ala Lys Glu Ser Met Trp Glu Phe Ile Tyr Leu Phe Ile Glu Thr Glu Ser His Ser Val Thr Gln Ala Gly Val Gln Trp Cys Asn Leu Ser Ser Leu Gln Pro Pro Pro Pro Trp Phe Lys Gln Phe Ser Cys Leu Ser Phe Pro Ser Ser Trp Asn Tyr Arg His Leu Pro Pro Cys Pro Ala Asn Phe Leu Tyr Phe Leu Tyr Phe Phe Phe Phe Leu Arg Trp Ser Leu Ser Val Leu Pro Lys Leu Glu Tyr Ser Gly Val 11e Ser Ala His Cys Asn Phe Cys Leu Pro Gly Ser Ser Asn Ser Ser Cys Leu Ser Leu Pro Ser Arg Trp Asn Tyr Arg Cys Pro Leu Pro Cys Leu Ala Asn Phe Cys Ile Phe

<210> 4091 <211> 144 <212> PRT <213> Homo sapiens <400> 4091 Met Val Tyr Asn Asn Glu Val Val Gly Lys Gly Arg Asn Glu Val Asn 1 5 10 15 Gln Thr Lys Asn Ala Thr Arg His Ala Glu Met Val Ala Ile Asp Gln 20 25 Val Leu Asp Trp Cys Arg Gln Ser Gly Lys Ser Pro Ser Glu Val Phe 40 45 Glu His Thr Val Leu Tyr Val Thr Val Glu Pro Cys Ile Met Cys Ala 50 60 Ala Ala Leu Arg Leu Met Lys Ile Pro Leu Val Val Tyr Gly Cys Gln 70 75 Asn Glu Arg Phe Gly Gly Cys Gly Ser Val Leu Asn Ile Ala Ser Ala 85 90 95 Asp Leu Pro Asn Thr Gly Arg Pro Phe Gln Cys Ile Pro Gly Tyr Arg 105 Ala Glu Glu Ala Val Glu Met Leu Lys Thr Phe Tyr Lys Gln Glu Asn 120 Pro Asn Ala Pro Lys Ser Lys Val Arg Lys Lys Glu Cys Gln Lys Ser 130 135 140

<210> 4092

<211> 176

<212> PRT

<213> Homo sapiens

<400> 4092

Met Glu Asn Gly Gln Ile Thr Pro Asp Gly Phe Leu Ser Lys Ser Ala

1 5 10 15

Pro Ser Glu Leu Ile Asn Met Thr Gly Asp Leu Met Pro Pro Asn Gln

			20					25					30		
Val	Asp	Ser	Leu	Ser	Asp	Asp	Phe	Thr	Ser	Leu	Ser	Lys	Asp	Gly	Leu
		35					40					45			
He	Gln	Lys	Pro	Gly	Ser	Asn	Ala	Phe	Val	Gly	Gly	Ala	Lys	Asn	Cys
	50					55					60				
Ser	Leu	Ser	Val	Asp	Asp	Gln	Lys	Asp	Pro	Val	Ala	Ser	Thr	Leu	Gly
65					70					75					80
Ala	Met	Pro	Asn	Thr	Leu	Gln	Ile	Thr	Pro	Ala	Met	Ala	Gln	Gly	Ile
				85					90					95	
Asn	Ala	Asp	Ile	Lys	His	Gln	Leu	Met	Lys	Glu	Val	Arg	Lys	Phe	Gly
			100					105					110		
Arg	Lys	Tyr	Glu	Arg	Ile	Phe	Ile	Leu	Leu	Glu	Glu	Val	Gln	Gly	Pro
		115					120					125			
Leu	Glu	Met	Lys	Lys	Gln	Phe	Val	Glu	Phe	Thr	He	Lys	Glu	Ala	Ala
	130					135					140				
Arg	Phe	Lys	Arg	Arg	Val	Leu	He	Gln	Tyr	Leu	Glu	Lys	Arg	His	Tyr
145					150					155					160
Lys	Val	His	Leu	Arg	Leu	Pro	Pro	Thr	Ser	Asp	Ile	Cys	Ser	Cys	Met
				165					170					175	

<210> 4093

<211> 326

<212> PRT

<213> Homo sapiens

<400> 4093

 Met
 Glu
 Gly
 His
 Val
 Asp
 Arg
 Ser
 Ser
 Gln
 Pro
 Thr
 Ala
 Arg
 Arg
 Ile

 1
 5
 5
 10
 15
 15

 1le
 Asn
 Ser
 Asp
 Pro
 Val
 Asp
 Leu
 Val
 Glu
 Glu
 Asn
 Thr
 Phe

 Val
 Gly
 Pro
 Pro
 Pro
 Ala
 Thr
 Ser
 Ile
 Ser
 Gly
 Gly
 Glu
 Asn
 Tyr
 Pro

 Thr
 Glu
 Pro
 Asn
 Cys
 Ser
 Ser
 Ala
 Thr
 Phe
 Thr
 Gly
 Asn
 Leu
 Ser
 Phe

 50
 55
 55
 60
 Frage
 <t

Leu Ala Ser Leu Gln Leu Ser Ser Asp Val Ser Ser Leu Ser Pro Thr

65					70					75					80
Ser	Asn	Asn	Ser	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Gln	Lys	Ala	Pro
				85					90					95	
Leu	Pro	Cys	Pro	Gln	Gln	Asp	Val	Ser	Arg	Pro	Pro	Gln	Ala	Leu	Pro
			100					105					110		
Cys	Pro	Leu	Arg	Pro	Leu	Pro	Cys	Pro	Pro	Arg	Ala	Ser	Pro	Cys	Pro
		115					120					125			
Pro	Arg	Ala	Ser	Ser	Cys	Pro	Pro	Arg	Ala	Leu	Ser	Cys	Pro	Ser	Gln
	130					135					140				
Thr	Met	Gln	Cys	Gln	Leu	Pro	Ala	Leu	Thr	His	Pro	Pro	Gln	Glu	Val
145					150					155					160
Pro	Cys	Pro	Arg	Gln	Asn	Ile	Pro	Gly	Pro	Pro	Gln	Asp	Ser	Leu	G1 y
				165					170					175	
Leu	Pro	Gln	Asp	Val	Pro	Gly	Leu	Pro	Gln	Ser	He	Leu	His	Pro	Gln
			180					185					190		
Asp	Val	Ala	Tyr	Leu	Gln	Asp	Met	Pro	Arg	Ser	Pro	Gly	Asp	Val	Pro
		195					200					205			
Gln	Ser	Pro	Ser	Asp	Val	Ser	Pro	Ser	Pro	Asp	Ala	Pro	G1n	Ser	Pro
	210					215					220				
G1 y	Gly	Met	Pro	His	Leu	Pro	Gly	Asp	Val	Leu	His	Ser	Pro	G1y	Asp
225					230					235					240
Met	Pro	His	Ser		Gly	Gly	Val	Thr	His	Ser	Pro	Arg	Asp	He	Pro
				245					250					255	
His	Leu	Pro		Asp	Arg	Pro	Asp		Thr	Gln	Asn	Asp	Val	Gln	Asn
			260					265					270		
Arg	Asp	0.55	Pro	Met	Asp	He		Ala	Leu	Ser	Ser		Ser	Cys	Thr
Б		275	0.1	m.			280	_		_	_	285			
Pro		Trp	Gly	Thr	GIu		Asp	Ser	Val	Ser		Lys	Lys	Lys	Lys
	290		1	61	* 1	295 D	ъ		r.		300				_
	Lys	Arg	Lys	61u		Pro	Pro	Asn	Phe		Leu	Phe	Asn	Leu	
305	TI.	Λ	W - 3	T	310					315					320
arg	ınr	Arg	val	Lys	Asn										
				325											

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<211> 106
<212> PRT
<213> Homo sapiens
<400> 4094
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Leu Asp Cys Glu Thr Leu Ile Asp Gln Tyr Leu Arg Asp Pro Asn Leu
             20
                                  25
                                                      30
Gln Lys Arg Tyr Pro Leu Ala Leu Asn Arg Ile Ala Ala Gln Glu Val
                              40
Pro Ile Glu Ile Lys Pro Val Asn Pro Ser Pro Leu Ser Gln Leu Gln
                         55
                                              60
Arg Met Glu Pro Lys Gln Met Phe Trp Val Arg Ala Arg Gly Tyr Ile
65
                     70
                                          75
                                                              80
Gly Lys Ser Thr Pro Trp Met Gly Gly Asn His Ser Pro Arg Gly Leu
                                      90
Pro Leu Ile Cys Cys Val Ala Leu Gly Thr
            100
                                 105
<210> 4095
<211> 401
<212> PRT
<213> Homo sapiens
<400> 4095
Met Ser Leu Trp Lys Lys Thr Val Tyr Arg Ser Leu Cys Leu Ala Leu
  1
                  5
                                      10
                                                          15
Ala Leu Leu Val Ala Val Thr Val Phe Gln Arg Ser Leu Thr Pro Gly
                                 25
Gln Phe Leu Gln Glu Pro Pro Pro Pro Thr Leu Glu Pro Gln Lys Ala
                             40
                                                  45
Gln Lys Pro Asn Gly Gln Leu Val Asn Pro Asn Asn Phe Trp Lys Asn
```

55

Pro Lys Asp Val Ala Ala Pro Thr Pro Met Ala Ser Gln Gly Pro Gln

65					70					75					80
Ala	Trp	Asp	Val	Thr	Thr	Thr	Asn	Cys	Ser	Ala	Asn	lle	Asn	Leu	Thr
				85					90					95	
His	Gln	Pro	Trp	Phe	Gln	Val	Leu	Glu	Pro	Gln	Phe	Arg	Gln	Phe	Leu
			100					105					110		
Phe	Tyr	Arg	His	Cys	Arg	Tyr	Phe	Pro	Met	Leu	Leu	Asn	His	Pro	G1u
		115					120					125			
Lys	Cys	Arg	Gly	Asp	Val	Tyr	Leu	Leu	Val	Val	Val	Lys	Ser	Val	He
	130					135					140				
Thr	Gln	His	Asp	Arg	Arg	Glu	Ala	He	Arg	Gln	Thr	Trp	Gly	Arg	Glu
145					150					155					160
Arg	Gln	Ser	Ala	Gly	Gly	Gly	Arg	Gly	Ala	Val	Arg	Thr	Leu	Phe	Leu
				165					170					175	
Leu	Gly	Thr	Ala	Ser	Lys	Gln	Glu	Glu	Arg	Thr	His	Tyr	Gln	Gln	Leu
			180					185					190		
Leu	Ala	Tyr	Glu	Asp	Arg	Leu	Tyr	Gly	Asp	He	Leu	Gln	Trp	Gly	Phe
		195					200					205			
Leu	Asp	Thr	Phe	Phe	Asn	Leu	Thr	Leu	Lys	Glu	Ile	His	Phe	Leu	Lys
	210					215					220				
Trp	Leu	Asp	Ile	Tyr		Pro	His	Val	Pro		He	Phe	Lys	Gly	
225					230					235					240
Asp	Asp	Va]	Phe		Asn	Pro	Thr	Asn		Leu	Glu	Phe	Leu	Ala	Asp
				245					250					255	
Arg	Gln	Pro		Glu	Asn	Leu	Phe		Gly	Asp	Val	Leu		His	Ala
			260			_		265		<i>m</i>		Б	270		
Arg	Pro		Arg	Arg	Lys	Asp			Tyr	Tyr	He		Gly	Ala	Leu
т	C1	275	. 1	c	T	D.	280 D		4.1	61	C1	285	C1	DI.	,
lyr		Lys	Ala	Ser	lyr		Pro	lyr	Ala	GIŸ		Gly	Gly	Phe	Leu
Mad	290	C1	C	Lan	۸1	295	A	1	115 -	0: -	300	Cua	A = 10	Tl	1
	AJA	GIŸ	ser	Leu		Arg	Arg	Leu	mrs		на	Cys	ASP	Thr	
305	Lan	Tun	Dano	11.	310	Aan	Vol	Dha	Lau	315	Mot	Cua	Lau	C1	320 Val
GIU	Leu	1 y 1	110	325	veb	иер	vai	гие	330	G1 y	Met	Cys	Leu	G1u 335	vai
Lev	G1v	Vəl	Gln		Thr	Αla	Hic	Glu		Pho	Lve	Thr	Phe	Gly	Πe
เอน	01 y	, (3)	340	110	1 113	WIG	1113	345	01 y	1116	Lys	1111	350	Oly	116
Ser	Arg	Asn		Asn	Ser	Arg	Met		Lvs	Glu	Pro	Cvs		Phe	Arg

Ala Met Leu Val Val His Lys Leu Leu Pro Pro Glu Leu Leu Ala Met Trp Gly Leu Val His Ser Asn Leu Thr Cys Ser Arg Lys Leu Gln Val Leu <210> 4096 <211> 668 <212> PRT <213> Homo sapiens <400> 4096 Met Asn Ala Leu Gln Ser Leu Thr Gly Gly Pro Ala Ala Gly Ala Ala Gly Ile Gly Met Pro Pro Arg Gly Pro Gly Gln Ser Leu Gly Gly Met Gly Ser Leu Gly Ala Met Gly Gln Pro Met Ser Leu Ser Gly Gln Pro Pro Pro Gly Thr Ser Gly Met Ala Pro His Ser Met Ala Val Val Ser Thr Ala Thr Pro Gln Thr Gln Leu Gln Leu Gln Gln Val Ala Leu Gln Gln Gln Gln Gln Gln Gln Phe Gln Gln Gln Gln Ala Ala Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln He Gln Ala Gln Gln Ser Ala Met Gln Gln Gln Phe Gln Ala Val Val Gln Gln Gln Gln Leu Gln Gln Gln Gln Gln Gln His Leu Ile Lys Leu His His Gln Asn Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Arg 11e 

				165					170					175	
Gln	Gln	Gln	Gln	Gln	Gln	Ala	Leu	G1n	Ala	Gln	Pro	Pro	He	Gln	G1n
			180					185					190		
Pro	Pro	Met	G1n	Gln	Pro	Gln	Pro	Pro	Pro	Ser	Gln	Ala	Leu	Pro	Gln
		195					200					205			
Gln	Leu	Gln	Gln	Met	His	His	Thr	G1n	His	His	Gln	Pro	Pro	Pro	G1n
	210					215					220				
Pro	Gln	Gln	Pro	Pro	Val	Ala	Gln	Asn	Gln	Pro	Ser	G1n	Leu	Pro	Pro
225					230					235					240
Gln	Ser	Gln	Thr	Gln	Pro	Leu	Val	Ser	Gln	Ala	Gln	Ala	Leu	Pro	G1 y
				245					250					255	
Gln	Met	Leu	Tyr	Thr	Gln	Pro	Pro	Leu	Lys	Phe	Val	Arg	Ala	Pro	Met
			260					265					270		
Val	Val	Gln	Gln	Pro	Pro	Val	Gln	Pro	Gln	Va1	Gln	Gln	Gln	Gln	Thr
		275					280					285			
Ala	Val	Gln	Thr	Ala	Gln	Ala	Ala	Gln	Met	Val	Ala	Pro	Gly	Val	G1n
	290					295					300				
Val	Ser	Gln	Ser	Ser	Leu	Pro	Met	Leu	Ser	Ser	Pro	Ser	Pro	Gly	Gln
305					310					315					320
Gln	Val	Gln	Thr	Pro	Gln	Ser	Met	Pro	Pro	Pro	Pro	Gln	Pro	Ser	Pro
				325					330					335	
Gln	Pro	Gly	Gln	Pro	Ser	Ser	Gln	Pro	Asn	Ser	Asn	Val	Ser	Ser	Gly
			340					345					350		
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Phe	Leu	Pro	Ser	Pro	Ser	Pro	Gln	Pro
		355					360					365			
Ser	Gln	Ser	Pro	Val	Thr	Ala	Arg	Thr	Pro	Gln	Asn	Phe	Ser	Val	Pro
	370					375					380				
Ser	Pro	Gly	Pro	Leu	Asn	Thr	Pro	Val	Asn	Pro	Ser	Ser	Val	Met	Ser
385					390					395					400
Pro	Ala	Gly	Ser	Ser	Gln	Ala	Glu	Glu	Gln	G1n	Tyr	Leu	Asp	Lys	Leu
				405					410					415	
Lys	Gln	Leu		Lys	Tyr	Ile	G]u		Leu	Arg	Arg	Met		Asn	Lys
			420					425					430		
He	Asp		Asn	Glu	Asp	Arg	Lys	Lys	Asp	Leu	Ser		Met	Lys	Ser
		435					440					445			
Leu	Leu	Asn	He	Len	Thr	Asn	Pro	Ser	lve	Aro	Cvs	Pro	Len	lvs	The

	450					455					460				
Leu	Gln	Lys	Cys	Glu	He	Ala	Leu	Glu	Lys	Leu	Lys	Asn	Asp	Met	Ala
465					470					475					480
Val	Pro	Thr	Pro	Pro	Pro	Pro	Pro	Val	Pro	Pro	Thr	Lys	Gln	Gln	Tyr
				485					490					495	
Leu	Cys	Gln	Pro	Leu	Leu	Asp	Ala	Val	Leu	Ala	Asn	He	Arg	Ser	Pro
			500					505					510		
Val	Phe	Asn	His	Ser	Leu	Tyr	Arg	Thr	Phe	Val	Pro	Ala	Met	Thr	Ala
		515					520					525			
Ile	His	Gly	Pro	Pro	lle	Thr	Ala	Pro	Val	Val	Cys	Thr	Arg	Lys	Arg
	530					535					540				
Arg	Leu	Glu	Asp	Asp	Glu	Arg	Gln	Ser	lle	Pro	Ser	Val	Leu	Gln	Gly
545					550					555					560
Glu	Val	Ala	Arg	Leu	Asp	Pro	Lys	Phe	Leu	Val	Asn	Leu	Asp	Pro	Ser
				565					570					575	
His	Cys	Ser	Asn	Asn	Gly	Thr	Val	His	Leu	Ile	Cys	Lys	Leu	Asp	Asp
			580					585					590		
Lys	Asp	Leu	Pro	Ser	Val	Pro	Pro	Leu	Glu	Leu	Ser	Val	Pro	Ala	Asp
		595					600					605			
Tyr	Pro	Ala	Gln	Ser	Pro	Leu	Trp	Πle	Asp	Arg	Gln	Trp	Gln	Tyr	Asp
	610					615					620				
Ala	Asn	Pro	Phe	Leu	Gln	Ser	Val	His	Arg	Cys	Met	Thr	Ser	Arg	Leu
625					630					635					640
Leu	Gln	Leu	Pro	Asp	Lys	His	Ser	Val	Thr	Ala	Leu	Leu	Asn	Thr	Trp
				645					650					655	
Ala	Gln	Ser	Val	His	Gln	Ala	Cys	Leu	Ser	Ala	Ala				
			660					665							

<210> 4097

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4097

Met Gln His Asn Ala Trp Leu Ile Phe Val Phe Ser Val Asp Thr Gly Phe Cys His Val Val Gln Ala Gly Leu Lys Leu Leu Ser Ser Ser Asp 25 Pro Pro Thr Leu Ala Ser Gln Ser Ala Arg lle Thr Gly Met Ser His 40 Gly Ala Trp Pro Ser Leu Ala Val Phe Tyr Lys Ala Lys His Ala Thr 55 60 Thr Ile Gln Pro Thr Asn Tyr Thr Leu Gly His Leu Ser Gln Arg Asn 70 65 75 80 Glu Asn Ile Leu Thr Lys Asn Pro His Met Asn Ala His Ser Ile Leu 90 85 95 Gly His Asn Ser 100

<210> 4098

<211> 135

<212> PRT

<213> Homo sapiens

100

<400> 4098

Met Ser Ser Leu Glu Ile Ser Ser Ser Cys Phe Ser Leu Glu Thr Lys 1 5 10 Leu Pro Leu Ser Pro Pro Leu Val Glu Asp Ser Ala Phe Glu Pro Ser 25 Arg Lys Asp Met Asp Glu Val Glu Glu Lys Ser Lys Asp Val Ile Asn 40 45 Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val Ile 50 60 55 Ser Pro Leu Cys Gly Ala Ile Ser Leu Phe Val Gly Thr Thr Arg Asn 75 Asn Phe Glu Gly Lys Lys Val IIe Ser Leu Glu Tyr Glu Ala Tyr Leu 90 Pro Met Ala Glu Asn Glu Val Arg Lys lle Cys Ser Asp Ile Arg Gln

105

Lys Trp Pro Val Lys His Ile Ala Val Phe His Arg Leu Gly Tyr Asp 120 125 Phe Leu Tyr His Ser Lys Ser 130 135 <210> 4099 <211> 488 <212> PRT <213> Homo sapiens <400> 4099 Met Gln His Val Ser Ser Ser Gln Ser Ser Gln Arg His Val Gln Trp 1 5 10 15 Pro Gly Ala Cys Pro Gly Ala Gly Glu Glu Gln Pro Ala Cys Ser Gln 20 25 Pro Ser Leu Pro Leu Thr Leu Pro Ser Pro Ser His Gln Leu Gln Gln 40 Leu Met Val Arg Gly Gly Pro Ala Gly Gly Gln Asn Met Asn Val Asp 50 55 60 Leu Gln Gly Val Gly Pro Gly Leu Gln Gly Ser Pro Gln Val Thr Leu 70 75 Ala Pro Leu Pro Leu Pro Ser Pro Thr Ser Pro Gly Phe Gln Phe Ser 85 . 90 Ala Gln Pro Arg Arg Phe Glu His Gly Ser Pro Ser Tyr Ile Gln Val 105 Thr Ser Pro Leu Ser Gln Gln Val Gln Thr Gln Ser Pro Thr Gln Pro 120 Ser Pro Gly Pro Gly Gln Ala Leu Gln Asn Val Arg Ala Gly Ala Pro 130 135 140 Gly Pro Gly Leu Gly Leu Cys Ser Ser Ser Pro Thr Gly Asp Phe Val 150 155

Asp Ala Ser Val Leu Val Arg Gln Ile Ser Leu Ser Pro Ser Ser Gly

Gly His Leu Val Phe Gln Asp Gly Ser Gly Leu Thr Gln Ile Ala Gln

185

170

190

165

G1 y	Ala	Gln	Val	Gln	Leu	Gln	His	Pro	Gly	Thr	Pro	Ile	Thr	Val	Arg
		195					200					205			
Glu	Arg	Arg	Pro	Ser	Gln	Pro	His	Thr	Gln	Ser	Gly	Gly	Thr	He	His
	210					215					220				
His	Leu	Gly	Pro	Gln	Ser	Pro	Ala	Ala	Ala	Gly	Gly	Ala	Gly	Leu	Gln
225					230					235					240
Pro	Leu	Ala	Ser	Pro	Ser	His	He	Thr	Thr	Ala	Asn	Leu	Pro	Pro	Gln
				245					250					255	
Ile	Ser	Ser	He	He	Gln	Gly	Gln	Leu	Val	Gln	Gln	Gln	Gln	Val	Leu
			260					265					270		
Gln	Gly	Pro	Pro	Leu	Pro	Arg	Pro	Leu	Gly	Phe	Glu	Arg	Thr	Pro	Gly
		275					280					285			
Val	Leu	Leu	Pro	Gly	Ala	Gly	Gly	Ala	Ala	Gly	Phe	Gly	Met	Thr	Ser
	290					295					300				
Pro	Pro	Pro	Pro	Thr	Ser	Pro	Ser	Arg	Thr	Ala	Val	Pro	Pro	Gly	Leu
305					310					315					320
Ser	Ser	Leu	Pro	Leu	Thr	Ser	Val	Gly	Asn	Thr	Gly	Met	Lys	Lys	Val
				325					330					335	
Pro	Lys	Lys	Leu	Glu	Glu	lle	Pro	Pro	Ala	Ser	Pro	Glu	Met	Ala	Gln
			340					345					350		
Met	Arg	Lys	Gln	Cys	Leu	Asp	Tyr	His	His	Gln	Glu	Met	Gln	Ala	Leu
		355					360					365			
Lys	Glu	Val	Phe	Lys	Glu	Tyr	Leu	He	Glu	Leu	Phe	Phe	Leu	Gln	His
	370					375					380				
Phe	Gln	Gly	Asn	Met	Met	Asp	Phe	Leu	Ala	Phe	Lys	Glu	Arg	Leu	Tyr
385					390					395					400
G1y	Pro	Leu	Gln	Ala	Tyr	Leu	Arg	Gln	Asn	Asp	Leu	Asp	lle	Glu	Glu
				405					410					415	
Glu	Glu	Glu	Glu	His	Phe	Glu	Va]	He	Asn	Asp	Glu	Val	Lys	Val	Val
			420					425					430		
Ala	Arg	Lys	His	G1 y	G1n	Pro	Gly	Thr	Ser	Va]	Ala	He	Ala	Thr	Gln
		435					440					445			
Leu	Pro	Pro	Arg	Thr	Ser	Ala	Ala	Phe	Pro	Ala	Gln	Gln	Gln	Pro	Leu
	450					455					460				
Gln	Gln	He	His	Met	Gly	Thr	Pro	Val	Pro	Gly	Asp	Val	Asn	Ser	He
465					470					475					480

Lys Met Glu Ala Ser Lys Arg Gln 

<210> 4100 <211> 262 <212> PRT <213> Homo sapiens <400> 4100 Met Tyr Ile Leu Val Tyr Thr Tyr Val Tyr Thr Cys Ile Cys Ile Arg Val Tyr Val His Val Tyr Gly Cys Thr Asp Val Tyr Ser Met Tyr Ile Cys Met His Val Tyr Met Cys Thr Leu Tyr Thr Val Tyr Met Cys Val Tyr Met Cys Thr Cys Ile Pro Val Arg Val Tyr lle His Ile Ile Tyr Thr Tyr Met Tyr Ile His Met His Ala Tyr Ala Tyr Met Cys Val Phe Ile Cys Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg Val Cys lle His Met Tyr lle His Ile His Ala Tyr Ala Tyr lle Cys lle Phe lle Tyr Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg lle Cys lle His Met Tyr lle His lle His Ala Tyr Ala Cys Ile Cys Met Phe Met Tyr Ala His Met Arg Ala Tyr Val Tyr Ser Tyr Thr Arg lle Cys lle His Ile Cys Ile Phe lle Tyr Thr Tyr Val Cys Met Cys Val Cys Ser Cys lle His Val Tyr Thr Cys Val Tyr lle His lle Tyr lle Gly 

Met His Ile Cys Val Tyr Ser Tyr Met His Arg Tyr Thr Tyr Val Tyr

<210> 4101

<211> 527

<212> PRT

<213> Homo sapiens

<400> 4101

Met Trp Pro Phe Ile Cys Gln Phe Ile Glu Lys Leu Phe Arg Glu Thr
1 5 10 15

Ile Glu Pro Ala Val Arg Gly Ala Asn Thr His Leu Ser Thr Phe Ser
20 25 30

Phe Thr Lys Val Asp Val Gly Gln Gln Pro Leu Arg Ile Asn Gly Val
35 40 45

Lys Val Tyr Thr Glu Asn Val Asp Lys Arg Gln Ile Ile Leu Asp Leu 50 55 60

Gln Ile Ser Phe Val Gly Asn Cys Glu Ile Asp Leu Glu Ile Lys Arg
65 70 75 80

Tyr Phe Cys Arg Ala Gly Val Lys Ser Ile Gln Ile His Gly Thr Met

85 90 95

Arg Val Ile Leu Glu Pro Leu Ile Gly Asp Met Pro Leu Val Gly Ala 100 105 110

Leu Ser Ile Phe Phe Leu Arg Lys Pro Leu Leu Glu Ile Asn Trp Thr
115 120 125

Gly Leu Thr Asn Leu Leu Asp Val Pro Gly Leu Asn Gly Leu Ser Asp 130 135 140

Ile	Thr	Val	Pro	Leu	Val	Ser	Glu	Val	Gln	He	Ala	Gln	Leu	Arg	Phe
				165					170					175	
Pro	Val	Pro	Lys	Gly	Val	Leu	Arg	He	His	Phe	He	Glu	Ala	Gln	Asp
			180					185					190		
Leu	Gln	Gly	Lys	Asp	Thr	Tyr	Leu	Lys	Gly	Leu	Val	Lys	Gly	Lys	Ser
		195					200					205			
Asp	Pro	Tyr	Gly	Ile	Ile	Arg	Val	Gly	Asn	Gln	He	Phe	Gln	Ser	Arg
	210					215					220				
Val	Ile	Lys	Glu	Asn	Leu	Ser	Pro	Lys	Trp	Asn	Glu	Val	Tyr	Glu	Ala
225					230					235					240
Leu	Val	Tyr	Glu	His	Pro	Gly	Gln	Glu	Leu	Glu	lle	Glu	Leu	Phe	Asp
				245					250					255	
Glu	Asp	Pro	Asp	Lys	Asp	Asp	Phe	Leu	Gly	Ser	Leu	Met	He	Asp	Leu
			260					265					270		
He	Glu	Val	Glu	Lys	Glu	Arg	Leu	Leu	Asp	Glu	Trp	Phe	Thr	Leu	Asp
		275					280					285			
Glu	Val	Pro	Lys	Gly	Lys	Leu	His	Leu	Arg	Leu	Glu	Trp	Leu	Thr	Leu
	290					295					300				
Met	Pro	Asn	Ala	Ser	Asn	Leu	Asp	Lys	Val	Leu	Thr	Asp	He	Lys	Ala
305					310					315					320
Asp	Lys	Asp	Gln	Ala	Asn	Asp	Gly	Leu	Ser	Ser	Ala	Leu	Leu	lle	Leu
				325					330					335	
Tyr	Leu	Asp	Ser	Ala	Arg	Asn	Leu	Pro	Ser	Gly	Lys	Lys	lle	Ser	Ser
			340					345					350		
Asn	Pro	Asn	Pro	Val	Va]	Gln	Met	Ser	Val	Gly	His	Lys	Ala	Gln	Glu
		355					360					365			
Ser	Lys	lle	Arg	Tyr	Lys	Thr	Asn	Glu	Pro	Val	Trp	Glu	Glu	Asn	Phe
	370					375					380				
Thr	Phe	Phe	Ile	His	Asn	Pro	Lys	Arg	Gln	Asp	Leu	Glu	Val	G]u	Val
385					390					395					400
Arg	Asp	Glu	G1n	His	Gln	Cys	Ser	Leu	Gly	Ser	Leu	Lys	Val	Pro	Leu
				405					410					415	
Ser	Gln	Leu	Leu	Thr	Ser	Glu	Asp	Met	Thr	Val	Ser	Gln	Arg	Phe	GIn
			420					425					430		
Leu	Ser	Asn	Ser	Gly	Pro	Asn	Ser	Thr	He	Lys	Met	Lys	He	Ala	Leu
		435					440					445			

Arg Val Leu His Leu Glu Lys Arg Glu Arg Pro Pro Asp His Gln His Ser Ala Gln Val Lys Arg Pro Ser Val Ser Lys Glu Gly Arg Lys Thr Ser Ile Lys Ser His Met Ser Gly Ser Pro Gly Pro Gly Gly Ser Asn Thr Ala Pro Ser Thr Ser Gln Ser Arg Ser Arg Pro Pro Ala Ser Pro Arg Thr Ser Arg Cys Pro Ser Pro Pro Arg Ser Cys Gly Lys Gly 

<210> 4102

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4102

Met Gly Pro Cys Asn Gln Ala Gln Leu Cys Leu Val Phe Val Gln Thr Ser Asn Gly Pro Gly Arg Gly Trp His Phe Gly Tyr Phe Cys Leu Arg Gly Phe Leu Tyr Pro Asp Gln Ser Gln Pro His Ser Gln Trp Val Met Arg Val Glu Ile Ala Ser Ser Tyr Pro Cys Phe Leu Gln Cys Leu Phe Pro His Pro Asn Arg His Thr His Ala His Thr His Thr His Thr His Thr His Thr His Thr Pro Ser Phe Pro Leu Leu Ser Leu Gly Thr Gly Ala Pro Pro Cys Ser Pro Cys Ser Thr Gln Pro Pro Gly Arg Ser Pro Pro Thr Phe Asp Glu Ser Pro Pro Arg Lys Lys Tyr Asn Asn Leu

Glu Phe Gln Leu Asn Leu Gln

<210> 4103 <211> 136 <212> PRT <213> Homo sapiens <400> 4103 Met Arg Val Arg Met Cys Thr Tyr Cys Ser Leu Asp Phe Pro Ile Thr 10 Lys Cys Leu Ser Gln Val Thr Leu Ser Ser Ser Gln Phe Leu Arg 25 Gln Ala Met Glu Thr Gly Ala Asp Ala Lys Trp Ser Arg Gly Arg Arg 35 40 45 Ala Ala Cys Phe Ala Gly Pro Ala Pro Arg Leu Pro Ser Arg Ala Ala 55 Leu Ser Leu Gly Thr Val Asn Ser His Arg Ser Cys Gln Pro Pro Val 70 75 Leu Gly His Ala Pro His Met Asp Leu Glu Ser Val Ser Leu Leu Leu 85 90 Met Ser Thr Ser Arg Ser Leu Ser Phe Ala Phe Met Cys Leu Tyr Ser 105 Leu Tyr Ser Ser Ala Ile Gly Val Arg Ser Ser Phe Trp Thr Phe Leu 115 120 125 Met Gln 11e Lys Glu Lys Gly Val 130 135

<210> 4104

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4104

Met Gly His Ala Gly Cys Gln Phe Lys Ala Leu Leu Trp Lys Asn Trp

1 5 10 15

Leu Cys Arg Leu Arg Asn Pro Val Leu Phe Leu Ala Glu Phe Phe Trp 25 Pro Cys Ile Leu Phe Val Ile Leu Thr Val Leu Arg Phe Gln Glu Pro 45 Pro Arg Tyr Arg Asp Ile Cys Tyr Leu Gln Pro Arg Asp Leu Pro Ser 55 Cys Gly Val Ile Pro Phe Val Gln Ser Leu Leu Cys Asn Thr Gly Ser 70 75 Arg Cys Arg Asn Phe Ser Tyr Glu Gly Ser Met Glu His His Phe Arg 85 90 Leu Ser Arg Phe Gln Thr Ala Ala Asp Pro Lys Lys Val Asn Asn Leu 105 110 Ala Phe Leu Lys Glu Ile Gln Asp Leu Ala 115 120

<210> 4105

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4105

Met Ser Ser Ile Val Cys Pro Met Glu Glu Val Leu Arg Ala Ser Ala I 5 10 15

Gln Asn Lys Asp Asn Thr Lys Gly Ile Gly Arg Phe Tyr Lys Ala Gln
20 25 30

Phe Leu Ser Leu Met Ser Phe 11e Lys Tyr Phe Pro Tyr Tyr Leu Lys
35 40 45

Ala Thr Ile Gln Ser Ser Phe Ser Ala Ser Thr Val His Leu Val Cys 50 55 60

Gly Thr His Ser Val Gln Cys Phe Ile Phe Pro Val Ser Ile Ala Cys 65 70 75 80

His Leu Gly Arg Ile Leu Ile Ser Pro Val Thr Thr Thr Pro Asn Arg
85 90 95

Ala Leu His Gly Ser Glu Cys Ser Lys Tyr His Leu Leu Thr Asn Ala 100 105 110 Ser Lys Ser Thr Thr Asn Gln Asn Ile Val Pro Lys Glu Lys Ser Thr Lys Tyr His Asn <210> 4106 <211> 824 <212> PRT <213> Homo sapiens <400> 4106 Met Ile Arg Ser Ser Ser Ser Ser Tyr Met Ser Gly Ser Pro Gly Gly Ser Pro Gly Ser Gly Ser Ala Glu Lys Pro Ser Ser Asp Val Asp Ile Ser Thr His Ser Pro Ser Leu Pro Leu Ala Arg Glu Pro Val Val Leu Ser Ile Ala Ser Ser Arg Leu Pro Gln Glu Ser Pro Pro Leu Pro Glu Ser Arg Asp Ser His Pro Pro Leu Arg Leu Lys Lys Ser Phe Glu Ile Leu Val Arg Lys Pro Met Ser Ser Lys Pro Lys Pro Pro Pro Arg Lys Tyr Phe Lys Ser Asp Ser Asp Pro Gln Lys Ser Leu Glu Glu Arg Glu Asn Ser Ser Cys Ser Ser Gly His Thr Pro Pro Thr Cys Gly Gln Glu Ala Arg Glu Leu Leu Pro Leu Leu Leu Pro Gln Glu Asp Thr Ala Gly Arg Ser Pro Ser Ala Ser Ala Gly Cys Pro Gly Pro Gly Ile Gly Pro Gln Thr Lys Ser Ser Thr Glu Gly Glu Pro Gly Trp Arg Ala 

Ser Pro Val Thr Gln Thr Ser Pro Ile Lys His Pro Leu Leu Lys Arg

Gln	Ala	Arg	Met	Asp	Tyr	Ser	Phe	Asp	Thr	Thr	Ala	Glu	Asp	Pro	Trp
		195					200					205			
Val	Arg	He	Ser	Asp	Cys	He	Lys	Asn	Leu	Phe	Ser	Pro	He	Met	Ser
	210					215					220				
Glu	Asn	His	Gly	His	Met	Pro	Leu	Gln	Pro	Asn	Ala	Ser	Leu	Asn	Glu
225					230					235					240
Glu	Glu	Gly	Thr	Gln	Gly	His	Pro	Asp	Gly	Thr	Pro	Pro	Lys	Leu	Asp
				245					250					255	
Thr	Ala	Asn	Gly	Thr	Pro	Lys	Val	Tyr	Lys	Ser	Ala	Asp	Ser	Ser	Thr
			260					265					270		
Val	Lys	Lys	Gly	Pro	Pro	Val	Ala	Pro	Lys	Pro	Ala	Trp	Phe	Arg	Gln
		275					280					285			
Ser	Leu	Lys	Gly	Leu	Arg	Asn	Arg	Ala	Ser	Asp	Pro	Arg	G1 y	Leu	Pro
	290					295					300				
Asp	Pro	Ala	Leu	Ser	Thr	Gln	Pro	Ala	Pro	Ala	Ser	Arg	Glu	His	Leu
305					310					315					320
Gly	Ser	His	lle	Arg	Ala	Ser	Ser	Ser	Ser	Ser	Ile	Arg	Gln	Arg	Ile
				325					330					335	
Ser	Ser	Phe	Glu	Thr	Phe	Gly	Ser	Pro	Gln	Leu	Pro	Asp	Lys	Gly	Ala
			340					345					350		
Gln	Arg	Leu	Ser	Leu	Gln	Pro	Ser	Ser	G1 y	Glu	Ala	Ala	Lys	Pro	Leu
		355					360					365			
Gly	Lys	His	Glu	Glu	Gly	Arg	Phe	Ser	Gly	Leu	Leu	Gly	Arg	Gly	Ala
	370					375					380				
Ala	Pro	Thr	Leu	Val	Pro	Gln	Gln	Pro	Glu	G1n	Val	Leu	Ser	Ser	Gly
385					390					395					400
Ser	Pro	Ala	Ala	Ser	Glu	Ala	Arg	Asp	Pro	Gly	Val	Ser	Glu	Ser	Pro
				405					410					415	
Pro	Pro	Gly	Arg	Gln	Pro	Asn	Gln	Lys	Thr	Leu	Pro	Pro	G1 y	Pro	Asp
			420					425					430		
Pro	Leu	Leu	Arg	Leu	Leu	Ser	Thr	Gln	Ala	Glu	Glu	Ser	Gln	Gly	Pro
		435					440					445			
Val	Leu	Lys	Met	Pro	Ser	Gln	Arg	Ala	Arg	Ser	Phe	Pro	Leu	Thr	Arg
	450					455					460				
Ser	G1n	Ser	Cys	Glu	Thr	Lys	Leu	Leu	Asp	Glu	Lys	Thr	Ser	Lys	Leu
465					470					475					480

Tyr	Ser	He	Ser	Ser	Gln	Val	Ser	Ser	Ala	Val	Met	Lys	Ser	Leu	Leu
				485					490					495	
Cys	Leu	Pro	Ser	Ser	Ile	Ser	Cys	Ala	Gln	Thr	Pro	Cys	Ile	Pro	Lys
			500					505					510		
Glu	Gly	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Asn	Glu	Asp	Ser	Ala	Ala	Asn
		515					520					525			
Gly	Ser	Ala	Glu	Thr	Ser	Ala	Leu	Asp	Thr	Gly	Phe	Ser	Leu	Asn	Leu
	530					535					540				
Ser	Glu	Leu	Arg	Glu	Tyr	Thr	Glu	Gly	Leu	Thr	Glu	Ala	Lys	Glu	Asp
545					550					555					560
Asp	Asp	Gly	Asp	His	Ser	Ser	Leu	Gln	Ser	G1 y	Gln	Ser	Val	Ile	Ser
				565					570					575	
Leu	Leu	Ser	Ser	Glu	Glu	Leu	Lys	Lys	Leu	Пе	Glu	Glu	Val	Lys	Val
			580					585					590		
Leu	Asp	Glu	Ala	Thr	Leu	Lys	Gln	Leu	Asp	G1 y	Ile	His	Val	Thr	He
		595					600					605			
Leu	His	Lys	Glu	Glu	Gly	Ala	Gly	Leu	Gly	Phe	Ser	Leu	Ala	Gly	Gly
	610					615					620				
	Asp	Leu	Glu	Asn		Val	Ile	Thr	Val		Arg	Val	Phe	Pro	
625					630					635					640
G1 y	Leu	Ala	Ser		Glu	Gly	Ala	Ile		Lys	Gly	Asn	Glu		Leu
				645					650					655	
Ser	He	Asn		Lys	Ser	Leu	Lys		Thr	Thr	His	His		Ala	Leu
			660					665					670		
Ala	lle		Arg	GIn	Ala	Arg	Glu	Pro	Arg	GIn	Ala		He	Val	Thr
		675			0.7		680					685	0	mı	
Arg		Leu	Thr	Pro	Glu		Met	Pro	Asp	Leu		Ser	Ser	Thr	Asp
0	690		0		0	695	4.7	C		17. 2	700	1	C1	0	TI
	Ala	Ala	Ser	Ala		Ala	Ala	Ser	Asp		Ser	Val	Glu	Ser	
705	. 1	TI	17 1		710	v 1	TI		61	715	14 .	C .	A 1	C1	720
GJu	Ala	Inr	vai		Inr	vai	Thr	Leu		Lys	мет	Ser	Ala		Leu
C1	DI	C		725	C1	CI	1	C1	730	1	11.2	C1	Δ	735	D
Gly	rne	Ser		61u	ыу	GIY	Lys		ser	Leu	H1S	ыу		Lys	rro
1	Tl	71.	740	۸	γ1	DI	1	745	۸1.	۸1.	C	C1	750	C ~~~	C1
Leu	ınr		ASN	arg	116	rne	Lys	ыу	Ala	чта	ser		01n	ser	610
		755					760					765			

<210> 4107

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4107

Met Glu Gln Glu Ser Glu Cys Thr Arg Glu Thr Val Arg Pro Thr Ala 1 5 10 15

Gln Ala Ser Trp Pro Ser Ala Trp Leu Leu Gly Cys Ala Asp Gly
20 25 30

Cys Val Leu Arg Gly Tyr Ile Ser Cys Leu Arg Cys Leu Pro Leu Pro 35 40 45

Arg Thr Phe 11e Gly Leu Glu Val Thr Ser Gly His Ala Gln Phe Leu 50 55 60

Asp Leu Val Ser Glu Val Asp Arg Val Met Glu Glu Phe Asn Leu Thr
65 70 75 80

Thr Phe Tyr Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val 85 90 95

Gly Asp Ala Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln
100 105 110

Ala Ile Val Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His 115 120 125

Thr Glu Gln Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro
130 135 140

Leu Lys

<210> 4108 <211> 139 <212> PRT <213> Homo sapiens <400> 4108 Met Val Leu Pro Gly Leu Thr Leu Cys Ser Gly Ala Val Gly Thr Ser 10 Thr Gln Trp Leu Met Ala Ala Leu Ala Gln Leu Ser Arg Pro Gly Arg 25 Arg Leu Pro Pro Pro Pro Cys Cys Cys Leu Val Gln Pro Leu His 35 40 45 Gly Ser Ser Ser Leu Cys Gln Arg Glu Gly Leu Phe His His Lys Gln 55 60 His Ser His Ser His Gly Ala Trp Phe Leu Ser Pro Val His His Ser 75 Gln Ile Pro Gln Leu Ala Ala Cys Pro Leu Gln Ser Leu Arg Leu Ser 85 90 95 Lys Pro Arg Ser Pro Gly Arg Cys Cys Ala Trp Cys Gly Cys Leu Asn 105 Cys Glu Pro Phe Lys Trp Leu Pro Ser Pro Arg Arg Trp Pro Gly Ala 115 120 125 Cys Leu Lys Leu Cys Cys Thr Gln Ala Leu Cys 130 135

<210> 4109

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4109

Met Gln Asn Gly Ala Asp Trp Leu Phe Pro Pro Gln Leu Tyr Ser Leu 1 5 10 15

Leu	Glu	Arg	Ile	Asn	Pro	Asp	His	Ser	Phe	Pro	Val	Ser	Ser	His	Cys
			20					25					30		
Leu	Arg	Ala	Ala	Ala	Phe	Tyr	Val	Arg	G1 y	Leu	Phe	Ser	Phe	Phe	Gln
		35					40					45			
Gly	Arg	Tyr	Asn	Glu	Λla	Lys	Arg	Phe	Leu	Arg	Glu	Thr	Leu	Lys	Met
	50					55					60				
Ser	Asn	Ala	Glu	Asp	Leu	Asn	Arg	Leu	Thr	Ala	Cys	Ser	Leu	Val	Leu
65					70					75					80
Leu	Gly	His	He	Phe	Tyr	Val	Leu	Gly	Asn	His	Arg	Glu	Ser	Asn	Asn
				85					90					95	
Met	Val	Val	Pro	Ala	Met	Gln	Leu	Ala	Ser	Lys	lle	Pro	Asp	Met	Ser
			100					105					110		
Val	Gln	Leu	Trp	Ser	Ser	Ala	Leu	Leu	Arg	Asp	Leu	Asn	Lys	Ala	Cys
		115					120					125			
G1 y	Asn	Ala	Met	Asp	Ala	His	Glu	Ala	Ala	Gln	Met	His	Gln	Asn	Phe
	130					135					140				
Ser	Gln	Gln	Leu	Leu	Gln	Asp	His	Ile	Glu	Ala	Cys	Ser	Leu	Pro	Glu
145					150					155					160
His	Asn	Leu	Ile	Thr	Trp	Thr	Asp	Gly	Pro	Pro	Pro	Val	Gln	Phe	Gln
				165					170					175	
Ala	Gln	Asn	Gly	Pro	Asn	Thr	Ser	Leu	Ala	Ser	Leu	Leu			
			180					185							

<210> 4110

<211> 851

<212> PRT

<213> Homo sapiens

<400> 4110

Met Leu Lys Asp Glu Phe His Leu Lys Phe Phe Met Cys Val IIe Gln

1 5 10 15

Ser Arg Gln Leu Val Arg Thr Pro Gln Arg Thr Ala Gly Glu Ala Ser

20 25 30

Thr	Ser	Ser	Met	Leu	Ile	Pro	Lys	Pro	Pro	Pro	Lys	Thr	Asp	He	Leu
		35					40					45			
Lys	Ser	Leu	Asp	Thr	Met	Asp	Asp	Pro	Asp	Thr	Val	Gly	Ser	He	Pro
	50					55					60				
Val	Phe	Lys	Thr	Glu	Trp	Ile	Met	Thr	His	Glu	Glu	His	His	Ala	Ala
65					70					75					80
Lys	Thr	Leu	Gly	lle	Gly	Lys	Ala	He	Ala	Val	Leu	Thr	Ser	Gly	Gly
				85					90					95	
Asp	Ala	Gln	Gly	Met	Asn	Ala	Ala	Val	Arg	Ala	Val	Val	Arg	Val	Gly
			100					105					110		
Ile	Phe	Thr	Gly	Ala	Arg	Val	Phe	Phe	Val	His	Glu	Gly	Tyr	Gln	Gly
		115					120					125			
Leu	Val	Asp	G1y	Gly	Asp	His	He	Lys	Glu	Ala	Thr	Trp	Glu	Ser	Va1
	130					135					140				
Ser	Met	Met	Leu	Gln	Leu	Gly	Gly	Thr	Val	He	Gly	Ser	Ala	Arg	Cys
145					150					155					160
Lys	Asp	Phe	Arg	Glu	Arg	Glu	Gly	Arg	Leu	Arg	Ala	Ala	Tyr	Asn	Leu
				165					170					175	
Val	Lys	Arg	Gly	Ile	Thr	Asn	Leu	Cys	Val	Ile	Gly	G1 y	Asp	Gly	Ser
			180					185					190		
Leu	Thr	Gly	Ala	Asp	Thr	Phe	Arg	Ser	Glu	Trp	Ser	Asp	Leu	Leu	Ser
		195					200					205			
Asp	Leu	Gln	Lys	Ala	Gly	Lys	He	Thr	Asp	Glu	G1u	Ala	Thr	Lys	Ser
	210					215					220	•			
Ser	Tyr	Leu	Asn	lle	Val	Gly	Leu	Val	G1 y	Ser	lle	Asp	Asn	Asp	Phe
225					230					235					240
Cys	Gly	Thr	Asp	Met	Thr	He	Gly	Thr	Asp	Ser	Ala	Leu	His	Arg	He
				245					250					255	
Met	Glu	He	Val	Asp	Ala	11e	Thr	Thr	Thr	Ala	G]n	Ser	His	Gln	Arg
			260					265					270		
Thr	Phe	Val	Leu	Glu	Val	Met	Gly	Arg	His	Cys	Gly	Tyr	Leu	Ala	Leu
		275					280					285			
Val	Thr	Ser	Leu	Ser	Cys	Gly	Ala	Asp	Trp	Val	Phe	He	Pro	Glu	Cys
	290					295					300				
Pro	Pro	Asp	Asp	Asp	Trp	Glu	Glu	His	Leu	Cys	Arg	Arg	Leu	Ser	
305					310					315					320

Thr	Arg	Thr	Arg	Gly 325	Ser	Arg	Leu	Asn	Ile 330	lle	Ile	Val	Ala	G1u 335	Gly
Ala	He	Asp	Lvs		G1y	Lvs	Pro	He		Ser	Glu	Asp	He		Asn
			340					345					350	2,2	
Leu	Val	Val		Arg	Leu	Gly	Tyr		Thr	Arg	Val	Thr		Leu	G1 y
		355	-			·	360	•				365			·
His	Val	Gln	Arg	Gly	Gly	Thr	Pro	Ser	Ala	Phe	Asp	Arg	He	Leu	Gly
	370					375					380				
Ser	Arg	Met	Gly	Val	Glu	Ala	Val	Met	Ala	Leu	Leu	Glu	Gly	Thr	Pro
385					390					395					400
Asp	Thr	Pro	Ala	Cys	Val	Val	Ser	Leu	Ser	G1 y	Asn	Gln	Ala	Val	Arg
				405					410					415	
Leu	Pro	Leu	Met	Glu	Cys	Val	Gln	Val	Thr	Lys	Asp	Val	Thr	Lys	Ala
			420					425					430		
Met	Asp	Glu	Lys	Lys	Phe	Asp	Glu	Ala	Leu	Lys	Leu	Arg	Gly	Arg	Ser
		435					440				,	445			
Phe	Met	Asn	Asn	Trp	Glu	Val	Tyr	Lys	Leu	Leu	Ala	His	Val	Arg	Pro
	450					455					460				
Pro	Val	Ser	Lys	Ser	Gly	Ser	His	Thr	Val	Ala	Val	Met	Asn	Val	Gly
465					470					475					480
Ala	Pro	Ala	Ala	G1 y	Met	Asn	Ala	Ala		Arg	Ser	Thr	Val	Arg	He
				485					490					495	
Gly	Leu	He		Gl y	Asn	Arg	Val		Val	Val	His	Asp		Phe	Glu
			500					505			_		510		
GIy	Leu		Lys	Gly	Gln	He		GIu	Ala	G1 y	Trp		Tyr	Val	Gly
6.1	T.	515	67	<i>2</i> 1.1	<b>61</b>	C1	520			0.1	æ.	525		m.	
Q1 y		lhr	61 y	GIn	Gly		Ser	Lys	Leu	Gly		Lys	Arg	Ihr	Leu
Dana	530	Lua	C a u	DI	C1	535	71.	C	A 7	Λ	540	ТЪ	١	Dl	Δ
	Lys	Lys	261.	rne	61u 550	6111	116	ser	мта	555	116	mr	Lys	rne	
545	Gln.	Gly	Lou	Val	He	110	Cly	Clv:	Pho		Λla	Tur	The	Clv.	560
116	UIII	OTY	Leu	565	116	110	Oīy	OLY	570	010	лта	1 y 1	1111	575	ОТУ
Leu	GIn	Leu	Met		Gly	Arg	lvs	Gln		Asn	Glu	Leu	Cvs		Pro
			580		~ # J	0	2,0	585				204	590		
Phe	Val	Val		Pro	Ala	Thr	Val		Asn	Asn	Val	Pro		Ser	Asp
		595					600					605	•		•

Phe	Ser	Val	G1 y	Ala	Asp	Thr	Ala	Leu	Asn	Thr	He	Cys	Thr	Thr	Cys
	610					615					620				
Asp	Arg	Пе	Lys	Gln	Ser	Λla	Ala	Gly	Thr	Lys	Arg	Arg	Val	Phe	He
625					630					635					640
11e	Glu	Thr	Met	Gly	Gly	Tyr	Cys	Gly	Tyr	Leu	Ala	Thr	Met	Ala	Gly
				645					650					655	
Leu	Ala	Ala	Gly	Ala	Asp	Λ1а	Ala	Tyr	lle	Phe	Glu	Glu	Pro	Phe	Thr
			660					665					670		
Пе	Arg	Asp	Leu	Gln	Ala	Asn	Val	Glu	His	Leu	Val	Gln	Lys	Met	Lys
		675					680					685			
Thr	Thr	Val	Lys	Arg	Gly	Leu	Val	Leu	Arg	Asn	Glu	Lys	Cys	Asn	Glu
	690					695					700				
Asn	Tyr	Thr	Thr	Asp	Phe	He	Phe	Asn	Leu	Tyr	Ser	Glu	Glu	G1y	Lys
705					710					715					720
Gly	lle	Phe	Asp	Ser	Arg	Lys	Asn	Val	Leu	Gly	His	Met	Gln	Gln	Gly
				725					730					735	
Gly	Ser	Pro	Thr	Ser	Phe	Asp	Arg	Asn	Phe	Ala	Thr	Lys	Met	Gly	Ala
			740					745					750		
Lys	Ala	Met	Asn	Trp	Met	Ser	Gly	Lys	He	Lys	Glu	Ser	Tyr	Arg	Asn
		755					760					765			
Gly	Arg	He	Phe	Ala	Asn	Thr	Pro	Asp	Ser	Gly	Cys	Val	Leu	Gly	Met
	770					775					780				
Arg	Lys	Arg	Ala	Leu	Val	Phe	Gln	Pro	Val	Ala	Glu	Leu	Lys	Asp	G1n
785					790					795					800
Thr	Asp	Phe	Glu	His	Arg	He	Pro	Lys	Glu	Gln	Trp	Trp	Leu	Lys	Leu
				805					810					815	
Arg	Pro	lle	Leu	Lys	11e	Leu	Ala	Lys	Tyr	Glu	He	Asp	Leu	Asp	Thr
			820				•	825					830		
Ser	Asp	His	Ala	His	Leu	Glu	His	Пe	Thr	Arg	Lys	Arg	Ser	Gly	Glu
		835					840					845			
Ala	Ala	Val													
	850														

<210> 4111 <211> 112 <212> PRT <213> Homo sapiens <400> 4111 Met Asp Asn Ser Val Arg Val Tyr Pro Glu Thr Leu Gln Glu Thr Phe 10 Thr Glu Ala Pro Gly Phe Phe Thr Ser Ala Pro Asp Cys Thr Ser Trp 25 Thr Trp Ala Trp Val Pro Val Glu Arg Thr Glu Glu Trp Met Arg His 35 40 45 His Leu Thr Gly Pro Ser Pro Leu Ile Ser Pro Gly Thr Gln Asp Ser 55 Leu Ala Cys Ser Cys Cys His Gln Glu Glu Asp Pro Pro Gly Ala Val 65 70 75 80 His Gly Glu Val Leu Arg Ser Gly Gly Phe Cys Arg Gly Gly Met Trp 85 90 Leu Leu Cys Asp Gly Leu Trp Ala Arg Lys Asp Leu Tyr Leu Pro Arg 100 105 110 <210> 4112 <211> 196 <212> PRT <213> Homo sapiens <400> 4112 Met Pro Glu Ala Val Asp Val Asp Glu Ser Gln Leu Glu Asn Val Cys 10 Leu Ser Trp Gln Asn Glu Thr Ser Ser Gly Asn Leu Glu Ser Cys Ala 20 25 30 Gln Ala Arg Arg Val Thr Gly Gly Leu Leu Asp Arg Leu Asp Asp Ser 45 Pro Asp Gln Cys Arg Asp Ser Ile Thr Ser Tyr Leu Lys Gly Glu Ala

55

70

Gly Lys Phe Glu Ala Asn Gly Ser His Thr Glu 11e Thr Pro Glu Ala

60

80

75

50

Lys Thr Lys Ser Tyr Phe Pro Glu Ser Gln Asn Asp Val Gly Lys Gln 90 Ser Thr Lys Glu Thr Leu Lys Pro Lys Ile His Gly Ser Gly His Val 100 105 110 Glu Glu Pro Ala Ser Pro Leu Ala Ala Tyr Gln Lys Ser Leu Glu Glu 120 Thr Ser Lys Leu Ile Ile Glu Glu Thr Lys Pro Cys Val Pro Val Ser 135 Met Lys Lys Met Ser Arg Thr Ser Pro Ala Asp Gly Lys Pro Arg Leu 150 145 Ser Leu His Glu Glu Glu Gly Ser Ser Gly Ser Glu Gln Lys Gln Gly 170 Glu Gly Phe Lys Val Lys Thr Lys Lys Glu Ile Arg His Val Glu Lys 185 190 180 Lys Ser His Ser 195

<210> 4113

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4113

 Met
 Ser
 Met
 Pro
 Ala
 Ser
 Thr
 Ser
 Ser
 His
 Ile
 Val
 Asn
 Phe
 Ser
 Phe

 1
 5
 10
 15

 Tyr
 Lys
 Pro
 Leu
 Leu
 Phe
 Leu
 Leu
 Phe
 Leu
 Ile
 Jie
 Jie

Val Gly Pro Asp Asn Gly Thr Gly Ala Ala Pro Met His Cys Leu Leu 50 55 60

Phe Phe Leu Phe Phe Ser Asn Phe Phe Phe Leu Phe Pro Phe Leu Phe
65 70 75 80

Tyr Thr Phe 11e Phe Phe Phe Ser Leu Leu Phe Ser Trp Arg Trp Phe 85 90 95

Pro Pro Pro Leu Phe Leu Asp Arg Ala Gly Leu Gly Arg Gly Thr
100 105 110

<210> 4114

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4114

Met Asn Ile Ser Val Lys Ala Val Pro Leu Gly Leu Thr Arg Asp Leu

1 5 10 15

11e Ser Val Leu Cys Val Leu Ala Thr Ser Arg Val Arg 11e Ser Ala 20 25 30

Cys Pro Thr Ala Met Arg Asp Thr Thr Ala Thr Leu Gly Leu Ser Gly
35 40 45

Glu Ser Val Thr Glu Leu His Gln Asp Gly Ala Leu Pro His Pro Ser 50 55 60

Ala Cys Gln His Cys Ser Ser Lys Glu Pro Asp Val Thr Cys His Ser 65 70 75 80

Arg Val Gly Val IIe Leu Trp Val Ser Ser Trp Val Ala Pro Val Arg 85 90 95

Ala Val Pro Thr Thr Pro Thr Ala Pro Glu Ser Gly Gly Trp His Gln

100
105
110

Gly Cys Leu Thr Ser Ala Pro Gln Cys Phe Ser Leu Trp Leu 115 120 125

<210> 4115

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4115

Met Lys Thr Glu Leu Pro Val Gln Lys Gly Ser Arg Leu Pro Pro Pro I 5 10 15

 Pro
 Pro
 Cys
 Thr
 Ser
 Cys
 Pro
 Leu
 Pro
 Val
 His
 Ser
 Trp
 Asn
 Gln

 Pro
 Gly
 Gln
 Ala
 Thr
 Ser
 Gly
 Pro
 Gln
 Arg
 Gln
 Ala
 Gly
 Gly

 Pro
 Ser
 Arg
 Gly
 Arg
 Leu
 Glu
 Gly
 Leu
 Ala
 Asp
 Arg
 Pro
 His
 Pro

 Pro
 Pro
 Pro
 Val
 Gln
 Val
 Pro
 Ala
 Ala
 Val
 Pro
 P

<210> 4116

<211> 213

<212> PRT

<213> Homo sapiens

115

<400> 4116

Met Leu Val Gly Cys Met Tyr Val Phe Phe Arg Lys Val Ser Val Arg 10 His Leu Ser Lys Glu Asp Ile Tyr Ala Ala Lys Lys His Met Lys Lys 20 25 30 Cys Ser Ala Ser Leu Ala 11e Arg Glu Met Gln 11e Lys Thr Thr Met 40 45 Arg Cys His Leu Thr Pro Val Arg Met Ala Ile Ile Arg Lys Ser Gly 55 Asn Asn Arg Cys Trp Arg Gly Cys Gly Glu Ile Gly Thr Leu Leu His 70 75 80 65 Cys Cys Trp Asp Cys Lys Leu Val Gln Pro Leu Trp Lys Ser Val Trp 90 Gln Phe Leu Arg Asp Leu Glu Leu Glu Ile Pro Phe Asp Pro Ala Ile 100 110 105 Pro Leu Leu Gly Ile Tyr Pro Lys Asp Tyr Lys Ser Cys Cys Tyr Lys

120

Asp Thr Cys Thr Cys Met Phe Ile Ala Ala Leu Phe Thr Ile Ala Lys Thr Trp Asn Pro Pro Lys Arg Pro Thr Met 11e Asp Trp I1e Lys Lys Met Cys His Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp Glu Phe Thr Ser Phe Val Gly Thr Trp Met Lys Leu Glu Ile Ile Ile Leu Ser Lys Leu Ser Gln Glu Gln Lys Thr Lys His His Ile Phe Ser Leu lle Gly Gly Asn 

<210> 4117

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4117

Met Leu His Lys Asp Ala Leu Cys Ala Arg Arg Arg His Cys Gln Leu Cys Gly Gly Asp Arg Ser Glu Thr Val Ser Leu Glu Asp Leu Leu Gly Gln Glu Gly Val Ser Asp Glu Ala Gln Gly Arg Leu Gly Arg Ser Val Gly Phe Gly Ala Gly lle Ser Glu Phe Trp Pro Val Pro Leu Pro Pro Pro Val Gln Val Ala Gln Ala Gln Ser Pro Thr Ser Ala Arg Ala Pro Gln Gly Ser Trp Ala His Pro Asn Ser Ser Val Cys Pro Leu Trp Pro Pro Pro Pro Pro Ala Gly Ser Pro Gly Pro Leu Pro Leu Pro Ala Arg 

Leu Pro Cys Ala Ala Trp Asp His Phe Thr Lys Ser Phe Val Phe Gly

Pro Tyr Gly Asn Leu Leu Arg Gln Glu 130 135

<210> 4118

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4118

Met Ile Trp Arg Lys Leu Lys Cys Leu Leu Trp Leu Gln Arg Ser Glu

1 5 10 15

Gly Thr Leu His Ser Trp Leu Asp Arg Leu Asn Ser Gly Ile Gly Glu  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$ 

Val Val Gly Glu Trp Arg Gly Ala Glu Gly Thr Asp Thr Gly Arg Asp 35 40 45

11e Ser Lys Asp Cys Gln Gln Gly Met Met Ile Thr Gln Gly Glu Gln
50 55 60

Val Gln Pro Val Ser Trp Cys Cys Pro Glu Leu Met Thr Ala Ile Lys 65 70 75 80

Leu Pro Asp Phe Thr Ala Cys Ser Ala Leu Cys Pro Pro Gly Ile Leu 85 90 95

Gly Thr Phe Ser Arg Leu Gly Pro Gln Gly Arg Leu Glu Ala Ala His 100 105 110

Ser Leu His Cys Gln Ala Leu Ala Gly Gln Trp Ser Trp Gly Glu Gly 115 120 125

Gly

<210> 4119

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4119

Met	Leu	Leu	Phe	Ser	Leu	Trp	Tyr	Pro	Leu	Leu	Leu	Cys	Lys	Leu	Leu
1				5					10					15	
Leu	Thr	Lys	lle	Asn	Trp	Arg	Lys	Lys	Arg	Lys	Lys	Lys	Lys	Glu	Glu
			20					25					30		
Lys	Lys	Arg	Glu	Lys	Glu	Pro	Glu	Lys	Pro	Ala	Lys	Pro	Leu	Thr	Ala
		35					40					45			
Glu	Lys	Leu	Gln	Lys	Lys	Asp	Gln	Gln	Leu	Glu	Pro	Lys	Lys	Ser	Thr
	50					55					60				
Ser	Pro	Lys	Lys	Ala	Ala	Glu	Pro	Thr	Val	Asp	Leu	Leu	Gly	Leu	Asp
65					70					75					80
G1 y	Pro	Ala	Val	Ala	Pro	Val	Thr	Asn	G1 y	Asn	Thr	Thr	Val	Pro	Pro
				85					90					95	
Leu	Asn	Asp	Asp	Leu	Asp	He	Phe	Gly	Pro	Met	lle	Ser	Asn	Pro	Leu
			100					105					110		
Pro	Ala	Thr	Val	Met	Pro	Pro	Ala	Gln	Ala	Thr	Pro	Ser	Ala	Pro	Ala
		115					120					125			
Ala	Ala	Thr	Leu	Ser	Thr	Val	Thr	Ser	Gly	Asp	Leu	Asp	Leu	Phe	Thr
	130					135					140				
Glu	G1n	Thr	Thr	Lys	Ser	Glu	Glu	Val	Ala	Lys	Lys	Gln	Leu	Ser	Lys
145					150					155					160
Asp	Ser	Hle	Leu	Ser	Leu	Tyr	Gly	Thr	Gly	Thr	Ile	Gln	Gln	Gln	Ser
				165					170					175	
Thr	Pro	Gly	Val	Phe	Met	Gly	Pro	Thr	Asn	Ile	Pro	Phe	Thr	Ser	Gln
			180					185					190		
Ala	Pro	Ala	Ala	Phe	Gln	Gly	Phe	Pro	Ser	Met	Gly	Va]	Pro	Val	Pro
		195					200					205			
Ala	Ala	Pro	Gly	Leu	lle	Gly	Asn	Val	Met	Gly	Gln	Ser	Pro	Ser	Met
	210					215					220				
Met	Val	Gly	Met	Pro	Met	Pro	Asn	Gly	Phe	Met	Gly	Asn	Ala	Gln	Thr
225					230					235					240
Gly	Val	Met	Pro	Leu	Pro	Gln	Asn	Val	Val	Gly	Pro	Gln	Gly	Gly	Met
				245					250					255	
Val	Gly	Gln	Met	Gly	Ala	Pro	Gln	Ser	Lys	Phe	Gly	Leu	Pro	Gln	Ala
			260					265					270		
Gln	Gln	Pro	Gln	Trp	Ser	Leu	Ser	Gln	Met	Asn	Gln	Gln	Met	Ala	Gly
		275					280					285			

<210> 4120 <211> 209 <212> PRT <213> Homo sapiens

145

<400> 4120 Met Pro Gly Ser Cys Ala Glu Met Arg Thr Cys lle Leu Ala Gly His 5 10 Gly Gly Ser Leu Ser Asn Leu Met Asp Phe Val Lys Lys Thr Gly Ile 25 Cys Ala Ser Lys Trp Glu Trp Gly Thr Thr His Asn Phe Leu Tyr Lys 35 40 45 His Gly Gly Ile Arg Asp Lys Ile Met Ser Ser Arg Lys His Leu His 55 Leu Val Asp Ala Gly Leu Ala Ile Asn Thr Pro Phe Pro Leu Val Leu 65 70 75 80 Pro Pro Thr Arg Glu Val His Leu Ile Leu Ser Phe Asp Phe Ser Ala Gly Asp Pro Phe Glu Thr Ile Arg Ala Thr Thr Asp Tyr Cys Arg Arg 105 His Lys Ile Pro Phe Pro Gln Val Glu Glu Ala Glu Leu Asp Leu Trp 115 120 125 Ser Lys Ala Pro Ala Ser Cys Tyr lle Leu Lys Gly Glu Thr Gly Pro 135 Val Val Met His Phe Pro Leu Phe Asn Ile Asp Ala Cys Gly Gly Asp

lle Glu Ala Trp Ser Asp Thr Tyr Asp Thr Phe Lys Leu Ala Asp Thr

155

175

170

150

<210> 4121

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4121

Met Ala Asn Arg Asp Ser Ala Ser Pro His Ser Pro Pro Arg Arg
1 5 10 15

Arg Cys Leu Gly Gly Pro Thr Val Leu Pro Leu Arg Lys Ile His Ala 20 25 30

Gly Cys Tyr Gly Pro Gln Pro Pro His Arg His Pro Arg Pro Leu His
35 40 45

Thr Val Ser Leu Pro Ser Pro Asn Thr Leu Leu Pro Gln Pro Gly Asp
50 55 60

Pro Trp Met Glu Asp Trp Ala Ser Gln Ser Gly Arg Gln Asp Gln Arg
65 70 75 80

Val Cys Glu His Thr Cys Val Pro Ala Asp Met Pro Gln Asp Pro Arg

85 90 95

Asp Ala Pro Ala Pro Val Thr Trp Cys Gln Ser Tyr Leu Gly Asn Trp 100 105 110

Pro Phe Trp Phe Arg Val Asn Trp Glu Val Lys Pro Leu Gly Phe Val 115 120 125

Glu Lys Arg Thr Val Arg Glu Met Leu Cys His Leu Val Arg Lys Thr 130 135 140

Phe Phe Leu Ser Ser Lys lle Met Met Gly Phe Phe Trp Ile Cys Phe 145 150 155 160

Thr Asn Lys Ser Asp Trp Ser Ile

<211> 118 <212> PRT <213> Homo sapiens <400> 4122 Met Asn Pro Gln Ala Trp Thr Gly Ala Pro Glu Glu Ala His Thr Leu 1 5 10 15 Leu Leu Ser Leu Leu Leu Ile Phe Ser Val Trp Leu His Leu Cys His 25 Ser Cys Cys Thr Asp Leu Cys Met Pro Gly Lys Ala Lys Leu Ala Gln 35 40 45 Lys Ala Thr Gly His Leu Cys Lys Val Val Pro Gly Ala Gly Gly Pro 55 Ala Thr Asn Leu Thr Cys Cys Arg Ser Ala Tyr Ile Ser Ser Thr 70 75 Leu Glu Val Gly Pro Gln Cys His Met Leu Phe Leu Arg Pro Leu Leu 85 90 95 Tyr Gln Ser Ser Gly Ser Asn His Ser Gly Cys Gly Asn Leu Ala Ile 105 110 Pro Pro Ser Leu Ser Ser 115 <210> 4123 <211> 104 <212> PRT <213> Homo sapiens <400> 4123 Met Val Leu Cys His Arg Gly Phe Tyr Tyr Tyr Asn lle Lys Leu Glu 1 5 10 15

Val Val Leu Val Pro Gly Val Cys Ser Glu Phe Pro Glu Glu Arg Glu

25

30

20

<210> 4122